

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXVII. No. 2
WEEKLY.

BALTIMORE, FEBRUARY 8, 1895.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS

Manufacturers' Record.

PUBLISHED EVERY FRIDAY BY THE
Manufacturers' Record Publishing Co.
MANUFACTURERS' RECORD BUILDING,
Lexington and North Streets,
BALTIMORE.

RICHARD H. EDMONDS,
Editor and General Manager.
C. R. MARCHANT, Business Manager.

NEW ENGLAND OFFICE—John Hancock
Building, 178 Devonshire St., Boston.
S. I. CARPENTER, Manager.

SPECIAL TRAVELING REPRESENTATIVES:
RICHARD S. EVANS,
I. S. FIELD.

SUBSCRIPTION, - - - \$4.00 a Year.
TO FOREIGN COUNTRIES, - - 26s. 6d. a Year.

BALTIMORE, FEBRUARY 8, 1895.

THERE is danger that the South will run wild on trying to get New England cotton mills. It is all right to work for great things and expect great things in the way of New England investments in Southern cotton-mill enterprises, but if a part of the energy that is given to this interest should be turned to the development of other matters, it would be to the advantage of the South. Diversity is essential to Southern prosperity, and it will be well to avoid running wild in the cotton-mill business. Let us have a substantial, solid, well-rounded development of all interests.

TEXAS always believes in doing things on a big scale, and hence instead of contenting itself, like other Southern States, with sending committees from various towns and cities to New England to invite cotton mills, its legislature has unanimously passed a series of resolutions extending to the cotton-mill people of New England the heartiest invitation to come to Texas, and guaranteeing to them "a cordial reception, a warm welcome and equitable legislation, with due regards to their rights and those of the people."

A DISPATCH to the New York World says:

The United States consul general to Japan has brought about an agreement among cotton manufacturers of that country upon which they agree to take 100,000 bales of cotton direct from the United States to supply their mills on condition that the Pacific Railway makes suitable rates for overland freight in America.

If this be true, it is but another argument in favor of the construction of the Nicaragua Canal. It simply points out how great would be the shipments of cotton to Japan if there were an open waterway from the gulf to that country.

MESSRS. ROBINSON & UNDERWOOD, a leading real-estate firm of New Orleans, in a letter to the MANUFACTURERS' RECORD, say:

It is a recognized fact that the MANUFACTURERS' RECORD is a medium of progress. Its magnificent work for the South for the past ten years, alone and single handed, has borne and will continue to bear good fruit. On behalf of our people we extend sincere thanks.

Fighting Their Own Section.

The Staunton (Va.) News, in an editorial opposing the Nicaragua Canal, says:

There has already been spent on this canal, if we mistake not, more money than at the start was thought necessary to build it. Seventy millions of dollars under the proposed law will be a drop in the bucket.

It is to be regretted that any paper, especially a Southern paper, should be guilty of such senseless talk as this. So far about \$5,000,000 have been spent upon the canal, and no one ever estimated that it could be built for even one-twelfth of that sum, and yet the News thinks that more money has been spent than was originally thought necessary to build the entire canal. It is such foolish, silly criticisms as this that are found in many papers against this enterprise, thus misleading the public.

The MANUFACTURERS' RECORD is entirely indifferent as to what bill be passed or how the work be done, provided the canal be built, and built so that it shall be practically, if not absolutely, under the control of the United States government. What its construction means to the South is beyond the ability of any man to portray. It is the greatest opportunity ever presented to the South to control the world's commerce, to increase the value of every acre of land from Maryland to Texas and to build up great cities at every harbor from Hampton Roads to Corpus Christi. Of course, the country at large would be vastly benefited, but to the South it would mean an increase in wealth of millions and ten of millions of dollars every year—wealth than cannot be secured in any other way. And yet a few Southern papers and a number of Southern representatives, ignoring every fact in its favor, are blindly fighting an enterprise of such infinite value. It is one of the strange mysteries of the South that so many of its own people oppose every measure that is calculated to enhance the prosperity of their own section.

Self-Help the Best Help.

The MANUFACTURERS' RECORD has unceasingly urged upon the South the necessity of self-help. While striving to attract the attention of outside capital to the South, it has also urged that the best development that the South can secure will be by the use of its own capital and energy. In discussing this subject, the Enterprise, of Staunton, Va., says:

We of the South bank too much on outside capital. If those who have surplus money would employ it in useful industries there would be much greater progress than we have and greater means would come to our assistance. Confidence begets confidence, and when outsiders see that we are not afraid to risk our little, they will not hesitate to risk larger sums.

If this truth could be deeply impressed upon every business man in the South, it would soon work a mighty change in

Southern affairs. With all due credit to what has been accomplished by the people of the South, there is still room for more activity, more enterprise and a more liberal disposition to invest in home enterprises. If the South will utilize to the fullest extent its own capital and energy in developing its industrial interests and improving its farming methods, this in itself will prove the greatest advertisement that it can secure, and will draw many thousands of people and many millions of capital from other sections.

Less Cotton; More Corn.

The sure road to prosperity for 1895-96 is—less cotton; more corn.

If the South will raise 600,000,000 bushels of corn, against the 500,000,000 bushels raised last year, and not over about 7,000,000 bales of cotton, against the 9,500,000 bales raised this season, it will solve the problem of universal prosperity for this entire section.

In this issue of the MANUFACTURERS' RECORD Mr. Atwood Violet, of New Orleans, whose house has for so many years been identified with the cotton trade, points out the absolute necessity of a great decrease in cotton acreage and production in 1895. The MANUFACTURERS' RECORD has already persistently urged upon the South the importance of raising a great corn crop this year. Put the two things together—reduce cotton acreage and increase corn acreage—and the South will vastly add to its prosperity. It behooves every business man in the South, every merchant, every banker, every newspaper, to exert the utmost influence to urge upon farmers the absolute necessity of "less cotton; more corn." Let this be the South's rallying cry of 1895.

A Good Example to Follow.

One of the first Southern business bodies to act upon the call of the MANUFACTURERS' RECORD to take action relative to the Nicaragua Canal is the Birmingham (Ala.) Commercial Club. It has adopted resolutions urging the Alabama representatives in the House to make every effort to secure the passage of Senator Morgan's bill. This timely action should be followed at once by every other organization in the South which is alive to the benefits that this great enterprise will secure to the Southern States.

THE Gadsden (Ala.) Tribune takes up the question of diversified manufactures, advocated by the MANUFACTURERS' RECORD, and very sensibly remarks:

Instead of the whole South becoming inoculated with the cotton-mill craze, why don't somebody agitate the coming of a flour mill and let our farmers return to the cultivation of wheat. This is an excellent country for wheat, and there is no reason why we cannot raise what we need at home.

New England Sees the Hand-writing.

Probably nothing has so emphasized the alarm with which New England views the southward trend of business as the great gathering held in Boston last week for the purpose of organizing an association of business men for the purpose of devising the best methods for promoting the welfare of New England. The entire meeting, to which the Boston Herald devoted nearly four columns, was devoted to a discussion of how to keep New England factories from going South. Such a gathering as this, called by the Massachusetts State Board of Trade, is the strongest commendation of the South that has yet been given. It shows the marvelous revolution in public sentiment; it shows that the people of New England recognize the destiny of the South; that they see that the laws of trade are driving the cotton and many other manufacturing interests southward, but they vainly imagine that they can stay this movement by public meetings. Probably most of them do not really believe what they claim. If they have candidly studied the subject, they must recognize that the whole power of the business world is driving population, capital and industry into that section which was designed by nature to be the world's great workshop—the South.

At this meeting a national law for controlling the hours of labor was urgently advocated. Public sentiment, it was said, should be educated in this direction, so that the labor in manufacturing industries throughout the Southern States should be controlled by our national government. "Let Congress regulate the hours of labor," said one of the speakers, "then they would be the same in the South as in New England, and one of the South's advantages would be taken away." This very kind and generous proposition of our New England friend will hardly come to pass in his day. Nature has given the South the advantage of a longer day; it has given the South many other advantages, and while New England has been able in the past by its energy and capital to secure much legislation to its interest against the interest of the South, the day has probably forever passed when its influence will be so dominating as to secure the enactment of a uniform labor day simply for its benefit and to the disadvantage of the South. But even a uniform labor day would not stop the movement southward. That is only one small factor in the matter.

THE Boston Post seems to have gone somewhat crazy in discussing the movement of cotton-mill people to the South. In its issue of Tuesday last, under great scare headlines, it stated that several New England mills had put up a forfeit of \$1,000,000 each to bind engagements

to move South, and devoted about a column to a lot of senseless talk, in which it was mentioned that the Boott and the Dwight Companies had each deposited \$1,000,000 to guarantee that they would build mills in the South. The Post must imagine that its cotton-mill people are unusually well supplied with cash when they can put up \$1,000,000 forfeit on such short notice. A little more sense and a little less sensational trash in the discussion of matters pertaining to the South would be in order.

Do You Want to Reach New England People?

The MANUFACTURERS' RECORD is in receipt of a letter from one of the leading cotton-mill men of New England, a regular reader of this paper, in which he says:

I want to secure some facts regarding desirable mill locations in the South, as I receive communications every day from manufacturers throughout the North asking me to give them particulars in regard to cotton-manufacturing at the South, and also to indicate to them desirable locations. I do not wish to appear in Southern newspapers as advertising for propositions for settlement in the South, but I would like in some way, without my name being made public, to learn from some responsible people at the South what can be had in the way of satisfactory locations. Can you give me or cause to be sent to me descriptions and prospectuses, without putting any public advertisement in the paper or making any announcement of it, of some of the most desirable locations for cotton-manufacturing? The facts I particularly wish to know are these: Locations, climate, water-power and facilities, cost of coal, character of population, taxes (State and local), and such other facts, in a brief form, as set forth the special advantages of any given location.

The writer of this letter is one of the most prominent cotton manufacturers of New England. His letter indicates that many millmen are figuring on securing locations South.

The MANUFACTURERS' RECORD is widely read by cotton-mill people throughout New England. Southern people who wish to reach the textile interests of the North can do so through the MANUFACTURERS' RECORD, which by all Northern and Western people is universally looked to as the one authentic source of information in regard to the South. Why not advertise in the MANUFACTURERS' RECORD, and thus reach many of the Northern people who are figuring on moving South?

A DISPATCH from Washington states that an amendment has been made to the bill for an appropriation to aid the Tennessee Centennial, requiring that the Nashville people shall raise \$750,000 before this bill can take effect. This, it seems to the MANUFACTURERS' RECORD, is a very unjust requirement. It was not demanded of Atlanta, and it should not be of Nashville. The Nashville Exposition will prove of great value, not to the South only, but to the country at large. It should be supported by the entire country, and such a requirement as this ought not to be demanded. It is to the interest of the entire country, especially the North and West, that the greatest possible industrial development of the South shall come about. It is only by this means that the vast "plant" of the North, represented by its capital, its energy and its manufacturing interests, can find a field for employment. The development of the South will furnish a more important market for the productions of the industrial interests of other sections than can be hoped for from foreign trade for many years to come. It is,

therefore, especially desirable that these expositions at Atlanta, Nashville and Baltimore should be pre-eminently successful.

No Second-Hand Machinery.

A dispatch from Boston says:

Negotiations are now pending looking to the shipment of 260 carloads of cotton machinery to the South, most of it having been in use in one of the largest cotton factories in New Hampshire. It is considerably worn out, and not up to present standard in the way of the latest improvement, but it is thought to be quite good enough to be used on the quality of textiles turned out in the South.

If any cotton-mill concern in the South is seeking the surest way to bankruptcy, there is one certain and sure road to follow—that is, buy New England's second-hand machinery. And what is true of cotton mills is equally true of many other industries.

THE New York Mail and Express, having devoted many years of active work to the most bitter denunciations of the South, seeking in every way possible to misrepresent it and its people, is now generously offering to Southern towns to publish "write-ups" for them at the rate of \$750 a page. Doubtless some Southern towns will be taken in, only to find their "write-ups" on one page, and on the editorial page the same bitter, intolerant hatred of the South that has always inspired the Mail and Express. If the Mail and Express had lately undergone an actual change of heart, as it is still true that "the vilest sinner may yet return," there might be some excuse, but it ought to spend a few years of free praise of the South to atone for its past misdeeds.

THE MANUFACTURERS' RECORD is in receipt of a copy of the speech delivered by Prof. Courtenay De Kalb, of the School of Mines, Rolla, Mo., at the Trans-Mississippi Commercial Congress, on "The Nicaragua Canal; Its Political Relations and Commercial Advantages." Professor De Kalb has had such a long experience in the study of everything bearing on the canal, having spent some years in that country making investigations for American capitalists, that he is extraordinarily well equipped for discussing this subject not only from a business standpoint, but from his own personal knowledge of the country and the feasibility of the route.

A LETTER from Norfolk, Va., to the Baltimore Sun says:

The United States steamer Minneapolis will probably sail on Saturday for New York, where she will fill her bunkers with Pocahontas coal. The government buys Pocahontas coal cheaper at New York than at Lambert's Point.

If this be true, then there is need for some very decided action on the part of Norfolk people to bring about a change. Whatever it may be due to, whether to the railroads or to coal companies, it is an iniquity that should not be allowed to stand.

A BOSTON paper, referring to the movement of cotton manufacturing southward, says:

The Massachusetts manufacturers who are going South have learned a lesson from this. They are going as manufacturing corporations. Those who are negotiating for locations there now are negotiating for enough territory to give them full control. Their plants will form the centre of no boom towns and of no new Lowell and Lawrence. If centres of anything, they will be of communities like Lonsdale, Hebronville or Slatersville. This is one reason why Atlanta, which urges so hard for the mill's to come thither, is passed by.

Baltimore and Its Relation to the South.

Editor Manufacturers' Record:

The Blue Ridge, which forms the eastern wall of the Appalachian ranges, approaches the Atlantic coast as it runs northward. It is unbroken and a watershed up into central Virginia, and only cut to its base by the Potomac and Susquehanna. The western coal-bearing ranges widen out to meet the upper Ohio and the mountain country, and at the parallel of Baltimore the mountain country is from 250 to 300 miles across, the rivers flowing to the Atlantic via Chesapeake bay rising on the westerly ridges and cutting through the eastern ranges. This fact, and the deep indentation of the Atlantic coast by Chesapeake bay, bring the mountain country and tidewater almost together at the head of the bay at Baltimore. This topography of the mountains and the peculiar conformation of the coast line make Baltimore the key to that part of the mountain country lying between the Susquehanna and the head of the rivers which flow southward through the valley of East Tennessee, and Baltimore's lines of railway across the mountains to the lake and Ohio valley States, aside from running through the widest part of the mountain region of the South, and the part richest in minerals and forests, are shorter than those which connect the central Northern States with Philadelphia, New York or the New England cities. On the other side, the waters of the Chesapeake open up to Baltimore all the tidewater country of Maryland and Virginia, with their orchards, gardens, fisheries, oyster beds, innumerable harbors and other wealth. A rich and conservative city of 500,000, Baltimore is now in good shape to take her place as the money centre, the mart of exchange, the point for making the more highly-finished product, the centre of the innumerable small industries which can grow up only in large cities. Baltimore can be, and should be, to Southern development what New York has been to the upbuilding of the West, but with this difference: Year by year the exchanges between Europe and New York, on the one side, and the agricultural States of the West on the other, will be less and less an important part of the whole traffic of the Northern States. The markets created on both sides in that movement were essentially temporary. On the other hand, the interest between Baltimore and the Southern country, in which will lie her field of investment, will grow stronger as it grows in magnitude and complexity. Baltimore has a larger field of wealth to draw from, and a permanent field, than New York and New England had in their Western region, and the topography of Baltimore's field converges and concentrates it upon her much more than the West converges on New York; in fact, the short and natural lines between the West and the Atlantic converge on Baltimore. All these facts must ultimately make the Oriole City the great city of the Atlantic coast.

For a decade past changes have been rapid in the growth of foundations in the South for new development, and during the same period events have strongly pressed upon New York and New England in driving them to consider the needs for new locations for their people and industries, to make up for the falling away in the relative exchanges, and especially in the dwindling profits of exchanges with the West. This two-edged condition has cut both ways, and the result that must now grow out of the pressure which the last two or three years of depression and low prices have created will be a landslide from New York and New England southward. Not less than 2,000,000 of the population of that section will relocate themselves and their industries in the next five years. Almost all of them will go to the

South. Baltimore should be ready to take care of that part of it which can best prosper in or around the city, and to pass along those who can do better by going to newer and less developed regions farther South. But the whole South should be wide-awake, not to boom prices and thus head off the stranger, but to offer real and substantial advantages for his location in their midst, to the end that his prosperity may be permanently and steadily added to the wealth of the community in which he locates. What the South should look for is not good trades, but good times. A trade that weakens the newcomer is against the whole community, as well as against the stranger. Public enterprise now should be most thoroughly exerted to secure success to all who come; to conserve the wealth they bring, that it may grow and increase in the land, not to grab and waste it. The South has had one great lesson in "booms." It ought to satisfy her. The staking out of town-lots in wildernesses and like "enterprise" should be avoided.

Let the South, now having her foundations ready, welcome the stranger to the best they have to offer him, and make his welfare as dear as their own.

GEO. B. COWLAND.

A Big Electric-Power Enterprise.

For some months past Mr. J. H. Vaile, a prominent electric engineer of New York, and others, including Mr. A. E. Thornton, of the Atlanta National Bank; Mr. John Swann, of Inman, Swann & Co., New York, and Mr. Hugh R. Garden, of New York, have been at work organizing a company to build on the Chattahoochee river, a few miles from Atlanta, a large electric-power plant. It is proposed to expend about \$1,000,000 in the building of a dam and an extensive power house, with full equipment for the generation of electricity and its transmission to Atlanta. It is expected that this plant will develop about 10,000 horse-power, and preliminary contracts have already been made for furnishing this power to a number of Atlanta enterprises.

The MANUFACTURERS' RECORD is informed that contracts have been made with the Chattahoochee Brick Co. for building the dam, and with the Stilwell-Bierce & Smith-Vaile Co. for a part of the water-wheel equipment.

A Lumber Trust.

A meeting was held in Atlanta last week with a view to the organization of a long-leaf-pine lumber trust for Georgia and Alabama. This is said to be a part of a comprehensive scheme for the organization of a long leaf-pine lumber trust for almost if not quite the entire South. For some time efforts have been made in New York to form a lumber trust for a portion of the South, and this is probably a part of the same general scheme.

THE Fredericksburg (Va.) Free Lance observes the opening of its eleventh volume by appearing in an entire new dress. It is one of the wide-awake and newsy Southern exchanges, and a creditable representative of the best interests of its city and State. In its new gown its interesting columns are set off to better advantage.

THE city of Bedford, Va., has a system of water works which affords a supply of over 1,000,000 gallons daily, and which cost but \$25,000. The revenue from the use of this water is \$400 a year, or far more than enough to pay the interest on the cost.

A HANDSOME pamphlet is issued by the Board of Trade of Scranton, Pa. It describes and illustrates the advantages of this Lackawanna valley city, and evidences that the city's business men have united in the cause of progress.

PIG IRON AT \$5 A TON.

A Claim That It Can Be Made at That Figure.

54 WALL STREET,
NEW YORK, February 5.

Editor Manufacturers' Record:

My attention has been called to a doubt expressed by you in your issue of February 1 that pig iron can be made at La Follette, Tenn., at a cost not to exceed \$5 per ton. I am not at all surprised that the prediction that pig iron is soon to be manufactured in this country at so low a cost should create a doubt in your mind. When it was claimed that pig iron could be made at Birmingham for \$10, nine out of every ten iron men in the North laughed at the statement, and when it was finally announced that it was actually being made for \$8 everybody said it was impossible. But, as the furnaces of the North commenced to close, because of their inability to compete with those of the South, and Southern furnaces apparently continued to prosper, the doubting Thomases gradually grew fewer in number, and today you will find few who are hardy enough to contradict the statement that pig iron is being manufactured in the South for \$6.50 or less per ton. This decrease in the cost of pig iron has taken place in a comparatively short time, and it cannot be accounted for wholly upon the grounds of improved machinery and processes. The close proximity of raw materials has been the chief factor.

For two years I have been making careful research and collecting information concerning the various localities in this country and Europe where iron may be cheaply produced, and I feel perfectly safe in saying that nowhere in the world today yet discovered are all the conditions so favorable for the manufacture of pig iron as at La Follette, Campbell county, Tennessee. It is not my intention in this letter to enter into a lengthy discussion concerning the manufacture of iron. It is only my purpose to point out the conditions existing at this place, in order that the doubt lingering in your mind may be dispelled.

The La Follette Coal & Iron Co. owns from 7000 to 10,000 acres of iron-ore land, upon which there is a practically unlimited quantity of iron ore running from 54 to 59 per cent. metallic iron. It owns some 40,000 acres of coal land, upon which have been located a dozen or more seams of coal lying horizontally, all but one above water-level, and all of which but one can be mined practically without the use of a pump, for from ten to eighteen miles. These coals comprise every form of bituminous coal known, and are of unequalled quality. The coking coal is superior to Connellsville and Pocahontas, which fact has been demonstrated beyond a question. The La Follette coke runs fixed carbon 93.80, and the Connellsville 88.962; the ash in the La Follette coke is 3.63, and in the Connellsville 9.741. The comparison of other ingredients is equally as favorable to the La Follette coke. The coal from which this coke is made is within half a mile of the iron ore, and lying between the two is an inexhaustible quantity of limestone analyzing 98 per cent. carbonate of lime, and all three are so situated that they can be easily delivered at a furnace by gravity without the use of a pound of steam, and an abundance of never-failing water is at hand.

The cost of making iron at La Follette may be safely stated as follows:

Iron ore.....	\$ 60
Coke.....	1 35
Limestone (when needed).....	25
Labor, incidentals, repairs, interest, etc.....	2 57
Total.....	\$1 77

These figures are based upon the cost of labor, mining and coking in 1890. The item for labor in the furnace, incidentals, repairs, etc., (\$2.57 per ton) is taken from the official report of the United States

commissioner of labor for 1889 and 1890, as the result of a careful examination of eighteen or twenty furnaces then in operation in the South. You will notice that I am taking no advantage of the present price of labor. In the course of time the cost of mining coal and iron ore, the production of coke and the manufacture of iron will be considerably reduced through the use of improved machinery and methods, all of which will reduce the cost of the product at this point. I have not been able to find that pig iron has ever been produced at as low a cost in this country or in Europe. It is claimed that Germany has heretofore produced the cheapest iron in the world, and I have been informed that the cheapest production in Germany was made by the Diffording Iron Furnace & Mining Co., operating in the Grand Duchy of Luxemburg. The president of that company at the time iron was produced most cheaply was Mr. Joseph Simons, who, I am informed, has been authority on iron in Germany for ten or fifteen years. His experience and success certainly warrant much confidence in his ability and statements. I am pleased to hand you herewith a letter which I have recently received from him upon the point in question, as follows:

FIFTH AVENUE HOTEL,
NEW YORK, February 2, 1895.

EUGENE DAVIS, ESQ.,

General Manager La Follette Coal & Iron Co.

Dear Sir—I am in receipt of your letter of this date making inquiry as to the lowest price at which pig iron can be made in Europe under especially favorable circumstances. In reply I beg to say that when I was president and general manager of the Diffording Iron Furnace & Mining Co., operating in the Grand Duchy of Luxemburg, in the middle of the eighties, that company for years produced pig iron for 25 francs, or about \$5 a ton.

Two and a half tons of ore, containing about 40 per cent iron, from our own mines.....\$1 00
One ton of coke, purchased either in Germany or Belgium.....3 00
Labor and incidentals, wear and tear, etc.....1 00

\$5 00

By reading the experts' reports on the La Follette property in Tennessee, I find that you are in still more favorable circumstances than I was, as you are the producers on the spot of the coke. Of course the labor item is against you, but your ore is by far richer, and the small amount of limestone you have to add as a flux (not necessary in my case, as our ores contained their own flux, their gangue being carbonate of lime) is very small. On the strength of the reports mentioned, I have no doubt that you should produce pig iron for about, if not less than, \$5 per ton.

(Signed) JOSEPH SIMONS, M. E.

I am sure that an examination of the property of the La Follette Coal & Iron Co. by those capable of judging will bear me out in the assertions that I have made. To all those who doubt a cordial invitation is extended to visit the property and examine for themselves. EUGENE DAVIS.

THE "Uses of Compressed Air," by Mr. Addison C. Rand, which was published in the summer, has met with such a cordial reception that the first edition has been exhausted, and the second is about to appear. Mr. Rand's book did not treat of the technical uses of compressed air, but gave a practical account of the various uses to which air has so far been applied. The book abounds in illustrations, and is very handsome in its mechanical details of printing and binding. It is published by the Republic Press, 14 Lafayette Place, New York city.

PROMINENTLY among industrial journals stands the MANUFACTURERS' RECORD, of Baltimore, as an indefatigable worker in the interest of the South. Through its widespread and potent influence the mineral, agricultural and climatic advantages of the South, as well as its adaptability to successful manufacturing enterprises, are being made known to the world. To that journal more than to any other one agency is attributable the fact that the tide of immigration has been deflected from the West to the South.—Orlando (Fla.) Daily Reporter.

WHY HE IS COMING SOUTH.

A Dakota Editor Tells of the Causes of the Western Crop Failure and of the South's Advantages.

[Special Correspondent, MANUFACTURERS' RECORD.]

SOUTHERN PINES, N. C., January 31.

Among the people who have been strolling around here in the bright sunshine, which compels them to "shed" their overcoats, is Mr. George C. Jones, editor of the principal paper in Watertown, S. D. He has been visiting different parts of the South, as he has decided to put from \$10,000 to \$15,000 in a newspaper venture wherever the opening seems best to him. Mr. Jones has quite a history. He left Michigan for South Dakota a few years ago, tempted, like thousands of others, by the glittering inducements of land speculators and others. He saw Watertown in the "boom" period increase from a village of say 150 families to a city of 5000 people, and has seen 30 per cent. of that number leave their adopted home within five years, or about 300 a year. This is the reason he gave me:

"Dakota has a rich soil. We can't complain of that. But when the wind blows the growing crops out of the ground, what is the use of having any soil? That is what I have seen done. We don't fear the snow, but we do the wind. The country is flat prairie land, and the gales in winter sweep the snow off the seeded sections for miles and leave them bare, where in more protected States the snow acts as a blanket to keep the seed from frost blight. In summer, fall and spring as well we are subject to just as severe windstorms, which, if the ground is at all dry, fills the air with it in the form of dust particles, and, as I have said, frequently pulls out whole fields of half grown corn or grasses. The farmers have been so accustomed to replanting crops which have thus been blown up that they do not think it remarkable to be obliged to seed a field three times in one season—rather different from raising three crops in one year from the same field, as I found they can do in some Southern States.

"This is the main reason for the crop shortages in South Dakota, and the crop shortage is what is causing the depopulation of that part of the country. Other reasons, however, are these: 1. You can only work land about six months in the year, simply because the weather will not let you. It is either too cold, too windy or too wet. To a man who depends upon agriculture this means a loss of fully one-third of his time, for he cannot spend more than two months of bad weather in patching and repair work. 2. The cost of fuel is a very large item, as there is no woodland, and wood or coal must be bought with cash from farm products. My own fuel bill in Watertown averages nearly \$30 per month during the winter. 3. The expense of farming is much more than in other sections. For instance, where I have seen one mule hauling a plow in this State, the same work would require two heavy horses in Dakota. In breaking new ground we use from six to eight horses. Down South they use three. I might add other reasons, but these are the principal ones which place our section at such a disadvantage. And as the farmers become discouraged and leave, the town and city people, who largely depend on them, must follow. As I have stated, the soil is so productive that eighty bushels of corn to the acre have resulted on many farms, when we were favored by the weather, but it is seldom that the wind will give us a chance to reach those figures. In my own section the yield in 1893 and 1894 has been so small that in many cases the farmers have not enough for seed to sow this spring."

Then the conversation turned on the South, and Mr. Jones expressed his surprise at the wide range of its productions. "Right here in Southern Pines," said he,

"these people are making a success of raising grapes and peaches on what I supposed was simply white sand. I have examined several vineyards and orchards, and they are as healthy and as flourishing as one could wish for. Then to think that within less than twenty hours' ride of New York, here is a place where you can go around almost in your shirt sleeves, where invalids can go without overcoats and play croquet and enjoy themselves generally out of doors, while our people are wrapped in furs with the mercury at zero. It is certainly astonishing.

"I have been down in Georgia and in portions of the Carolinas. I have visited Macon and Augusta, also Charlotte, New Berne and Wilmington in this State. Among other places I visited was Hackburn & Willett's big "truck" farm, near New Berne, of which I had read a description in the *Southern States* magazine. What was printed was all true, and I could add much more. The people all seemed very cordial and anxious to have all the additions to population they can get of a desirable sort, but if I were to tell our folks of the variety of all the things which can be grown in this section, I don't think they would believe me. It is true that thousands of Western farmers think that cotton, corn, rice and sugar-cane, with some tobacco, are about all the crops raised. I was somewhat more enlightened, but had no idea that, besides all the native Southern crops, about all the grains and vegetables grown North can be grown here.

"Now, to give you an idea of the feeling in and near Watertown about moving away, I know of one banker who can command fully \$100,000 in cash. If he had been with me and had seen what I have within the last month, he would only wait until he had collected what was due him and disposed of his interests, to come down here and go to fruit-growing, for he is a great believer in it, and has tried it out there and failed to raise any trees. He has several relatives, most of them well-to-do, who would go wherever he went. There are fully fifty families who would come to this place if they knew they could secure such good neighbors and live as cheaply. Many of the farmers in the county are simply waiting to hear from neighbors who have gone South before they move to the locality where the neighbors have gone. But they won't do it this year. Why? Simply because they haven't money enough. They will wait until next year's harvest, if there is a harvest, gives them enough money to pay transportation expenses.

"Personally, I shall probably decide on some location for my business within the next two weeks. I am thoroughly convinced that the South is the place to come to. I must leave Watertown, because I will lose my business if the people leave. I shall stay South alone until fall, because I want to test the hot weather before moving my family from the North."

If such is the feeling at Watertown, what must it be in thousands of places in the Northwest? And what opportunities to secure immigration await those who will first acquaint the Western people with the advantages of their particular State.

The trouble is that Southern people are so familiar with their own country that they forget outsiders are about as ignorant of its fertility as they are of Africa.

D. ALLEN WILLEY.

THE South, out of its abundance, has certainly been prompt and generous in responding to the needs of the Nebraska sufferers. The MANUFACTURERS' RECORD, of Baltimore, suggested relief at Christmas time, and through its effort the governors and trade associations of the South were interested, and already trainloads of rice, coal, bacon, etc., have been forwarded, aggregating in value \$50,000.—Quincy (Mass.) Ledger.

Our South American Letter.

[Special Cor. MANUFACTURERS' RECORD.]

BUENOS AYRES, ARGENTINA, Dec. 13.

I have had the pleasure of appearing before the Rural Society and the Union Industrial, the two great bodies of Buenos Ayres, with a solid membership of 1500 members each, with five large buildings, and thoroughly organized.

The Rural has a laboratory with a scientific chemist, Dr. Roberto Weinicke, who makes analyses, and who has gathered a collection of the insects dangerous to agriculture that is not surpassed anywhere unless at Washington.

The Union Industrial has a museum of products manufactured here that is a magnificent display. Every manufacturer contributed his articles. The demonstration of industrial growth is amazing, and all has been done in a very few years. This city has 7619 establishments, and of these 1657 were spinning, 1210 hides, 1178 wood, 986 metals, 748 cereals, 289 glass, 268 cigar, 168 distilleries, fifty-one chemicals, twenty-six eating matters and 1044 miscellaneous.

Probably the largest manufacture is of boots and shoes, running to \$17,000,000, and embracing every kind. It is estimated that 25,000 hands are employed in this industry. Very few shoes are imported. With her 30,000,000 cattle, the Argentina has the raw hides in vast quantities.

Probably the next largest article of manufacture is sugar, which will go to \$8,000,000. All of my figures refer to gold. A refinery in Rosario can produce 44,000,000 pounds of fine sugar a year. The fifty-two sugar mills in the country produced 128,000,000 pounds of sugar.

Alcohol and liquor comes next, their production going to \$7,000,000, not counting wines, which will amount to \$5,000,000 more. There are 354 factories for liquors, producing 6,000,000 gallons; seventy-one alcohol mills from sugar, making 4,000,000 gallons, and nineteen maize distilleries, making 15,000,000 gallons yearly.

There are 291 flour mills in this country. As Argentina raises over a million tons of wheat, her capacity for flour can be estimated.

A very big industry is furniture, and the very handsomest is made. Buenos Ayres has 811 furniture factories, and 50,000 workmen are employed in getting out wood for the different wooden manufactures.

Large quantities of vermicelli are made in this city and province of Buenos Ayres, there being seventy-three factories, making 79,000,000 pounds worth \$2,500,000. Of candies and glass there are made nearly \$1,000,000 each.

Tobacco, earthenware, cements, bricks, buttons, feathers, hats, shirts, combs, sacks and a host of other things are manufactured. I was especially impressed in the museum with the broadcloth of the finest description, with the most beautiful corsets I have ever seen, lovely crockery, fine steel and iron products and good glassware.

The fact is that Argentina leads all of the South American countries in manufacturing progress. With her woods, wool, grain and ostrich farms, she has the possibility, if she will, of increasing her industries to a large extent.

I have been looking into the features of this great city's progress and equipment for trade. The city has 600,000 people, and it has grown this size since 1880 from a population of 250,000, making the phenomenal enlargement of 350,000 in the fourteen years—something almost unprecedented, and demonstrating a wonderful vitality.

In the last few years the city has put \$16,000,000 into her splendid system of docks, said to be the finest system in the world, with the single exception of Liverpool. This superb system has been created by filling the River Plate and building solid masonry in the water, constructing

numberless convenient piers, to which the largest ships can come. The masses of shipping lying along these docks testify to her great business.

Now, add the fact that nearly 10,000 miles of railroad run out from Buenos Ayres, connecting the city with the capital of every province, making her the commercial and transportation centre of a republic of fourteen provinces or states and eight large territories, forming a country one-third as large as the whole United States, and some conception can be formed of what a country it is the distributing point for. Now, consider that it has 100,000,000 sheep and 30,000,000 cattle, and raises wheat, grass, rice, sugar and corn in vast quantities, and has great mineral and timber resources, and you will understand its future.

It has a water-works system that cost \$45,000,000, and a filter with nearly a million of dollars in it. And most remarkable of all, it has a water tank that holds 70,000,000 gallons, that it has covered and closed in with a palace that cost \$3,500,000, the handsomest structure I have ever seen.

Buenos Ayres has, too, a splendid street-car system, going to all points and permeating the whole city. The fare is only two and three-quarters cents in our American gold.

Buenos Ayres is the most modern South American city I have seen, with great wealth and perfect equipages and other evidence of affluence. It has broader streets than the average city of this continent. Steamships from Europe come here almost daily, and every leading country in Europe has a bank here.

The free wool on the United States tariff legislation should open a colossal business with this country, wool being its main export, and should lead to the establishment of American wool factories here.

I shall devote my next letter to the opportunities for United States trade here, and what must be done to secure it.

L. W. AVERY.

Effects of the Florida Freeze Exaggerated.

The *Southern States* magazine has made a careful and thorough investigation of the effects of the recent freeze in Florida. The reports of its special correspondents (who are among the best informed and most conservative and trustworthy men in the State) show that the effects of the freeze, while bad enough it is true, were far less disastrous than was at first supposed; that the damage to fruits and vegetables, and the consequent money losses, and the permanent injury to orange trees, were enormously exaggerated. Of the orange crop, estimated at 5,000,000 boxes, about half had been gathered. It is thought that four-fifths of the remaining half were destroyed. Many young budded trees were killed, but few bearing orange trees suffered seriously, except in exposed places in the northern part of the State, and even trees a year old were not much affected in the southern part.

In parts of the State the damage to fruit trees and vegetables was very slight. Cabbage, turnips, onions and other hardy vegetables were comparatively uninjured. In some localities only about a third of the tomato plants were killed. According to the most conservative estimates, there will be three-fifths or two-thirds of a full crop of pineapples.

In Florida, where the season for vegetables is continuous, the destruction of a crop means simply the loss of such time as is required for replanted vegetables to reach the stage of growth that had been attained by those destroyed, and it is believed that the enhanced price of vegetables, strawberries, etc., in March and April will more than offset the damage to the December and January crops.

The reports in detail will be found in the current number of the *Southern States*.

FINANCIAL NEWS.

New Financial Institutions.

The Bluefield Insurance Agency of Bluefield, W. Va., has been incorporated.

A charter has been granted to the National Savings and Loan Association of Austin, Texas.

A bill has been introduced in the North Carolina legislature incorporating the Burlington Banking Co.

Movements toward the organization of new banks are under way at Smithville, Texas, and Grafton, W. Va.

A branch of the Guarantee Savings, Loan & Investment Co. of Washington has been established at Newport News, Va.

Bills have been introduced in the North Carolina legislature incorporating the Manufacturers' Mutual Fire Insurance Co. and the Farmers' Mutual Fire & Storm Insurance Co.

The Industrial Mutual Assurance Co. of Birmingham has applied to the Alabama legislature for a charter. W. P. G. Harding, N. M. Grant and H. M. Archibald are among the incorporators.

The Alabama Fire Insurance Co. has been organized at Troy, Ala., under a charter from the State legislature. Fox Henderson is president; O. C. Wiley, vice-president; J. B. Knox, secretary.

Application has been made to the Alabama legislature for a charter for the Southern Lumber Fire Association of Birmingham. L. V. Clark, John P. Tillman, W. G. Wadley and others are named as incorporators.

The new Dow Law Bank, organized at Fort Valley, Ga., under a State charter, has a capital stock of \$40,000. Officers have been elected as follows: W. H. Harris, president; S. H. Rumph, vice-president, and J. C. McDonald, cashier.

A fire insurance company with a capital stock of \$500,000 is being organized at Charleston, S. C. It is to be called the Equitable Insurance Co. The incorporators will be James F. Redding, F. Q. O'Neill, A. M. Lee and A. W. Bequest.

Bank of Fairmont, W. Va., mentioned last week as organizing, has secured a State charter. The incorporators include O. S. McKinney, Z. G. Morgan and J. E. Hayden. The capital stock authorized is \$250,000. The bank will commence business with \$25,000 capital.

The Southern Stock Mutual Insurance Co. is being organized at Greensboro, N. C. Among the incorporators are: William E. Holt and E. D. Latta, of Charlotte; Lawrence S. Holt, Burlington; Julian S. Carr, Durham; J. W. Scott and others, of Greensboro. The company is to begin business with a paid-in capital of \$100,000.

Officers of the State Bank of Florida, located at Jacksonville, have been elected as follows: John C. L'Engle, president; Henry G. Aird, cashier; E. A. Groover, assistant cashier. This institution succeeded to a private bank that was established in 1885. It was incorporated on December 10, 1894, with an authorized capital stock of \$500,000 and a paid-up capital of \$75,000.

New Bond and Stock Issues.

The Vining & Coleman Railway Co. (office, Austin, Texas) expects in a few weeks to issue \$270,000 worth of 5 per cent. gold bonds.

An ordinance has been introduced in the city council at Petersburg, Va., providing that city bonds to the amount of \$194,500 be issued, dated March 1, 1895, payable in forty years, bearing interest at 5 per cent.

Bids will be received until February 25 by J. C. Smith, Waxahachie, Texas, for the purchase of either \$100,000 or \$150,000 of 5 per cent. 10-40-year Ellis county courthouse bonds, issued November 16, 1894, in \$1000 denominations. Ellis county owes, including this issue of bonds, \$200,-

000. The taxable values of the county aggregate \$13,814,476, and the real value is estimated at \$25,000,000.

Bids were opened at Jackson, Miss., on February 4 for \$140,000 6 per cent. Hinds county funding bonds. The prices offered were par and over. It is said to be the first time in the history of the State that 6 per cent. county bonds sold for as much as par.

Interest and Dividends.

The Crozer Iron Co., Roanoke, Va., has declared a dividend of \$3 per share.

The Maryland Life Insurance Co., of Baltimore, is paying a 6 per cent. yearly dividend.

A semi-annual dividend of 4 per cent. has been declared by the State Bank of Fort Meade, Fla.

An annual dividend of 10 per cent. has been declared by the Dallas Cotton Mills, Dallas, Texas. The capital stock is \$250,000.

Junius Davis, receiver of the Bank of New Hanover, Wilmington, N. C., announces a second dividend of 10 per cent. to all creditors whose claims are proven.

Financial Notes.

THE Fidelity & Deposit Co. of Maryland, whose home office is located at Baltimore, has just completed arrangements for transacting the surety business in the State of Virginia. It has deposited with the treasurer of that State \$25,000 in Richmond city bonds, the security required from surety companies by the laws of the State of Virginia. The company is establishing agencies throughout the State.

Good Southern Collections.

Two representatives of Philadelphia jobbing houses, who have an extensive trade in the South, recently made these statements to a representative of the Stockholder of that city. They are significant:

"Although we are selling few goods in the South at present, there are many sections that are in good condition, and in which our collections are as good as they ever were, perhaps better, and this despite the fact that cotton is only bringing four and a-half cents a pound.

"Notwithstanding the low price of cotton and the poor tobacco crop, those sections of the South are doing well where the farmers raise their own provisions. In a very few sections of the South, where the farmers depend almost entirely on cotton and tobacco and buy their provisions from the West, the condition is bad. The South is doing fairly well on the whole."

New Market for West Virginia Coal.

The coal operators along the line of the West Virginia Central Railroad are making every effort to extend the market for their grades of coal. A few months ago coke from the West Virginia ovens was shipped to Mexico by way of Baltimore, where it was successfully used in smelting furnaces in that country and in other industries. Hon. Henry G. Davis, of the West Virginia Central, has just started for Mexico on a second trip to that country within a few months. It is possible that after his return West Virginia coal will be shipped there on an extensive scale to fill some large contracts made through his influence. These shipments will probably be made as the former ones—by steamer from Baltimore. The Davis Coal & Coke Co., of West Virginia, has been awarded the government contract for supplying 10,000 tons of coal to the United States squadron of evolution, now in West India waters. By having it sent direct from the sources of supply to the points where it is needed by the naval squadrons the government effects a great saving, the difference being about \$1 50 a ton. Hitherto the vessels have secured coal at the nearest fuel station.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 30.]

A Critic Criticised.

The table detailing the progress of railway construction in the South in 1894, recently published by the MANUFACTURERS' RECORD, has attracted the attention of the Railway Age, of Chicago, which criticises the statement as inaccurate in several particulars. While the MANUFACTURERS' RECORD appreciates the attention that its contemporary has given the matter, it finds that the latter has fallen into several grave errors in the figures it gives in its criticism. We herewith cite a few instances. The Age claims no mileage in Kentucky during the year. The State railroad commission, also the company building the line, are authority for the statement that the Log Mountain Company built twelve miles now operated by the Louisville & Nashville, in addition to which seven miles were built by private concerns in the State, making nineteen miles in all. As to Maryland, the Age acknowledges that it erred in not publishing four miles of the Baltimore & Ohio Belt Line completed during the year, as stated in the MANUFACTURERS' RECORD. It also states that the Northampton & Hertford road in North Carolina was completed in 1893. This road was not completed until February, 1894, (nine miles long). The article further states that the MANUFACTURERS' RECORD omitted twenty-two miles of Southern Pacific extension in Louisiana. This extension (Louisiana Western) was built in 1893, and has been in operation fully a year. The Age reports forty-two miles of the Jacksonville, St. Augustine & Indian River (Florida) built in 1894. This line was completed to within fifteen miles of its terminus, Lake Worth, on January 1, 1894, as reported by the engineer in charge of the work, and opened to that point about February 15, as detailed in the MANUFACTURERS' RECORD at the time. The Age does not seem to understand that the Texarkana & Fort Smith Railroad (Arkansas) is now a part of the Kansas City, Pittsburg & Gulf system, and claims that the MANUFACTURERS' RECORD has not reported nine miles which we have properly placed under the Kansas City, Pittsburg & Gulf mileage. It states that this road built twenty miles previous to 1894, when it is a well-known fact that in the last six months of 1893 alone it built over thirty miles of main line, as per reports of its general manager. Under the title "Overstated" the Age denies the MANUFACTURERS' RECORD's report of the Chattanooga Southern extension in Alabama. Receiver J. W. Burke will be doubtless pleased to confirm the fact that the road was extended to the Round Mountain district in that State, four miles, if the Age desires to make further inquiries, but this is only a minor matter where criticism seems to be in error. One of the most important is its statement that the Holston Valley road has been "overstated" by the MANUFACTURERS' RECORD. The building and completion of this 30 mile road was reported to the MANUFACTURERS' RECORD from time to time by the Willey Boom & Lumber Co., which built it. We simply mention this source of information to show on what authority news of this character is based.

The criticism also takes up the fact that the MANUFACTURERS' RECORD has included several roads rebuilt under the head of "new mileage." Two of these lines were narrow-gauge (Tennessee and Arkansas), and new roadbed, bridges, culverts, as well as track material, were required. Under such circumstances there is no reason why they should not be included under "new mileage," as well as other standard-gauge lines. However, in its list of construction

enterprises the MANUFACTURERS' RECORD specified all roads rebuilt in order to leave no question in the mind of the reader.

We might reply to every item which is contained in the criticism, but believe enough statements have been made to show that it is far from being based on accurate information. The fact is that the MANUFACTURERS' RECORD is so closely in touch with every part of the South that its facilities for gathering full information of railroads are not excelled by any other publication, railroad or otherwise, and the weekly reports which it publishes of this character are the most exhaustive and reliable of any given to the public. It is the recognized authority on the development of railroads in the South, just as it is on all matters of Southern progress.

An Important Texas Line.

The Vining Coal Co., of Austin, Texas, which has projected a railway from its coal lands on the Colorado river, in Texas, to a point on the Santa Fe system, twenty miles distant, advises the MANUFACTURERS' RECORD that it is about to issue \$270,000 in bonds to build a portion of the line. Referring to the prospects of the road, the company writes as follows:

"We have at present offers to take coal to the extent of 200 tons a day, and will have practically a monopoly of the coal trade for 370 miles south or to Galveston, on the gulf, and about that distance southwest to San Antonio. The Thurber mine, in Palo Pinto county, Texas, is now taking out 1800 tons of coal a day, with a vein considerably smaller than ours. South of the town we propose to build at the termination of the road is a fine farming and cattle country, which is directly tributary to us. We confidently expect that we can control the trade for fifty miles south of us, as we will be the nearest railroad point to that section. We expect to move every spring from 10,000 to 15,000 head of cattle. The road being a short one, the expenses will be maintained at the very lowest point, and the coal alone will take care of and pay all interest on the bonds.

"Most of the railway company will be interested in the coal company, and this will be an additional guaranty for the payment of the interest on the bonds of the railway. The Santa Fe system west of us is very anxious to assist us in building up a sale for our coal, and will place every convenience at our disposal."

The company is now seeking to make the necessary financial arrangements.

Chance to Build a Road.

The business men of Stephenville, Texas, are desirous of having a railroad built from the coalfields at Thurber to Alexander, on the Texas Central road, by way of Stephenville, and thence on to the rich ore region at Llano. The line from Stephenville to Alexander would be thirty-nine miles long. The town has had a survey made, and it is found that the maximum grade is but 1 per cent., while but little cutting or filling is required. The Thurber coal mines put out 280,000 tons of coal last year, and the operators there have offered to largely increase the production should this road be built, and if there is a demand, furnish it 500 tons per day. The section to be traversed is a large cotton-producer and a rich agricultural section. In a letter to the MANUFACTURERS' RECORD Eugene Moore, secretary of the Stephenville Board of Trade, writes:

"We have the right of way secured through this county. It could be had without trouble through the 110 miles of country between Alexander and Llano. Then, it is only a short distance to Kerrville, and a short distance from Thurber north to a grade of the Rock Island system. The terminal facilities at Thurber will be gladly given free. A large part of the

grading has been done, so I understand, between Lampasas and Llano. Altogether, it is an excellent opportunity for some one to build a paying railroad."

ACROSS THE VIRGINIAS.

Another Railroad Planned by Northern People.

New York and New England people are now forming a construction company to complete a system which will extend from Charleston, W. Va., to the Chesapeake bay. It will consist of the Charleston, Clendennin & Sutton road, 100 miles long in West Virginia, which is now under construction; a line to be built from Sutton, W. Va., across the Shenandoah valley by way of Harrisonburg, Va., to Fredericksburg, and the Northern Neck line to be built from Fredericksburg through the Northern Neck of Virginia to Chesapeake bay. The Northern Neck Company has had surveys made and has been organized. The entire system will be about 300 miles in length, and the MANUFACTURERS' RECORD is advised by the promoters, from whom these statements are secured, that it will form a new route from the Ohio river through the West Virginia coalfields to tidewater. Some of the parties interested are John H. Drake, of Philadelphia (Charleston, Clendennin & Sutton); W. C. Haight and F. L. Rodgers, of Bridgeport, Conn., (Northern Neck Company), and the International Company of New York.

New Route to Chicago.

By completion of the Chicago, Paducah & Memphis a new route has been opened between Memphis, Tenn., and Chicago. The last section to be built was 106 miles from Altamont, Ill., to Marion, Ill. At Marion it connects with the line to Paducah and Memphis by way of the Tennessee Midland, and at Altamont it connects with the Wabash system for Chicago. The original line of the Tennessee Midland is from Memphis to Paducah, traversing Western Tennessee and Kentucky. By the building of the Chicago, Paducah & Memphis the Midland becomes part of a trunk line from Chicago to the Mississippi river, while, by an arrangement with the Little Rock & Memphis road, the system would have a terminus in Arkansas. Besides the through business the line will secure from Chicago, the road passes through a productive farming country, also through a part of the Illinois coal region, which it will serve as an outlet to market. B. F. Johnson is general manager of the Chicago, Paducah & Memphis, and John Overton, receiver of the Tennessee Midland. The new line will be a competitor of the Illinois Central.

In Receivers' Hands.

President F. J. Kimball and Henry Fink have been appointed receivers for the Norfolk & Western system. This has been deemed to its best interests, as the company has a floating debt of nearly \$1,000,000.

Railroad Notes.

GEORGE KIDD has been appointed auditor of the Houston & Texas Central in place of J. C. Kidd.

W. B. ROMMEL has been appointed receiver of the West End & Riverside Railway Co., of Montgomery, Ala.

J. J. FARNSWORTH has been appointed general Eastern agent for the plant system. His office will be in New York.

THE receiver's sale of the Chattanooga Southern Railway has been postponed to February 14 by order of the court.

SENATOR T. BUN CARSON has introduced into the Tennessee legislature a bill to create a railroad commission for that State.

GEO. A. BURT, of New York, has been appointed general manager of the Ohio

River Railroad, with headquarters at Parkersburg, W. Va.

THE Baltimore & Cumberland Railway Co. has elected Thos. B. Davis, president, and C. M. Hendley, secretary and treasurer.

AT the annual meeting of the general-mortgage bondholders of the Mobile & Ohio Railroad Co. the present board of directors were elected.

WILLIAM HENRY ROSS has been appointed receiver of the Macon & Northern to succeed N. E. Harris, who becomes vice-president of the reorganized company.

THE Asheville & Spartanburg road, it is announced, will be sold at auction on the 15th inst. It will be probably purchased by interests connected with the Southern system.

THE Illinois Central is considering the advisability of establishing a steamship line to Tampico, Mexico, from New Orleans, in connection with the Monterey & Mexican Gulf Railway.

THE Southern Railway Co. believes in supporting industries in the section it traverses. It has given the Elliot Car Co., of Gadsden, Ala., an order for 300 box-cars, which are to be built immediately.

THE Georgia Southern & Florida has issued a folder that contains seventy pages of interesting matter, inclusive of maps and schedules. A considerable portion of the folder is given up to descriptive matter and illustrations picturing the fine fruit farms and vineyards along the Georgia Southern.

THE new union station at Jacksonville, Fla., is nearly completed, and hereafter trains of the Savannah, Florida & Western, Florida Central & Peninsular, Jacksonville, St. Augustine & Indian River and Jacksonville, Tampa & Key West will depart from it.

THE Norfolk & Western Company has just issued a handsome new folder descriptive of the resources and advantages of the country penetrated by its lines. The folder is gotten up in handsome style, and, with other information, gives complete schedules of the Norfolk & Western, with connections from New Orleans to New York. Its title is "Good Times in the South."

WITH each year the Travelers' Official Railroad Guide introduces new features which make it a more valuable encyclopedia of information. It now contains over 700 pages, and is a complete directory of the railway and steam navigation lines of the United States, Canada and Mexico. Hereafter several pages will be devoted to editorial comment, proceedings of meetings of importance, and a full list of official changes, appointments, etc.

THE Memphis Car & Foundry Co., of Memphis, Tenn., has closed contracts with the Illinois Central, Louisville & Nashville, Tennessee Midland and Kansas City, Memphis & Birmingham Railroads for a portion of car-wheels and castings required by those roads during the year. The company is also rebuilding a large number of freight cars for the Kansas City, Memphis & Birmingham and the Kansas City, Fort Scott & Memphis, and is constructing new cars for tank-line companies.

THE Dunford Paint Manufacturing Co. has been organized at Atlanta, Ga., and will operate a factory for the manufacture of the Dunford patent roof paint, which has been in use for twenty years. The company's capital stock is placed at \$50,000, and Randolph Southgate has been chosen president; D. P. Holland, vice-president; J. W. Dunford, manager; J. D. Pickard, treasurer, and J. S. Daley, secretary.

THE Florida Kaolin Co. has begun operations on a large scale, mining kaolin in Clay county, Fla., near Green Cove. The kaolin is said to be of the very best quality, and is being shipped to Europe.

SOUTHERN TEXTILE INTERESTS.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on pages 28 and 29.]

Improved Baling System.

As recently stated in the MANUFACTURERS' RECORD, contracts have been let for putting up a large plant at Waco, Texas, to bale cotton by the Bessonette system. As is generally known, this system, if adopted, would involve a radical change in the present methods of baling and compressing cotton. By this press a cylindrical bale is made. The machinery can be attached to any country gin without much outlay, and the cotton baled in this way is so closely packed that no additional compressing is required; in fact, a complaint that has been made against this bale is its great density, but this can be regulated as desired. If this system can accomplish what Mr. Edward Atkinson and others who have investigated it believe, it will work a revolution in the entire cotton-handling business of the South and prove of very great value to the planters. Mr. Jerome Hill, of St. Louis, one of the leading cotton factors of the South, who has been so long and intimately identified with cotton-handling and compressing, he and his brother being heavily interested in compresses at St. Louis and Memphis, has been giving a careful investigation to this Bessonette system, and it is reported that he contemplates taking an active interest in it. If this be true, and Mr. Hill should become identified with the Bessonette enterprise, this would doubtless carry more weight in the public mind than any step that has yet been made in connection with this new baling system. The identification of Mr. Hill with the Bessonette Company, which would necessarily mean that he believed this system is destined to take the place of all present compressing and baling methods, would at once command wide attention and give public confidence to it. It would also mean that it would be vigorously and progressively pushed and not permitted to hang fire, as is the case with many good things. It matters not how good any patent or any system of such a revolutionizing character as this may be, it must necessarily have the broadest and most comprehensive business management and backing if it is to make its way against the invested interests that necessarily are opposed to it. If the Bessonette people can succeed in inducing Mr. Hill to take hold, it will probably be the wisest move that they could make.

The MANUFACTURERS' RECORD believes that improved baling is one of the greatest needs of the cotton trade. The barbarous treatment which cotton now receives causes enormous losses, running into millions yearly, that necessarily fall on the planters, though they do not realize it. To introduce any radical change, it matters not how good it may be, will require hard work. The established customs of trade, the transportation regulations, the opposition of invested interests, must all be overcome, and this means more than is generally appreciated. For the good of the South the MANUFACTURERS' RECORD trusts that the Bessonette, the Rembert or some other improved system may be forced upon the cotton-handling world.

New Mill at Columbia, S. C.

The Richlands Mill, of Columbia, S. C., which obtained a charter several weeks ago, has completed arrangements to secure the erection of its plant. The entire capital stock of \$150,000 has been subscribed, and contracts for the buildings will be awarded shortly. The main building will be three stories high, 308x76 feet. An equipment of 10,000 spindles and 550 looms has been ordered, and it is expected that the mill will be in operation by next Sep-

tember, employing 150 hands and making the finest grade of goods. It is announced that the goods to be made will be the finest ever manufactured in the South. The product is to be fine sheetings that, it is said, will be fully equal to the "Fruit of the Loom." Mr. W. B. S. Whaley, the well-known engineer of Columbia, is the prime mover in this enterprise.

The Cotton Situation.

NEW ORLEANS, January 28.

Editor Manufacturers' Record:

The question of reduction of acreage is the absorbing one here just now, and has been for some time past, and has brought out much discussion through the public press in advocacy of it.

At anything like present quotations it will not require the resolutions of conventions recommending a reduced area to be cultivated to bring this about, because to whatever extent it may be lessened will be, in the main, involuntary, partly through inability to secure the necessary assistance, and largely, too, through an indisposition to expend \$1.50 to secure return of \$1, which the cultivation of cotton at present prices is equivalent to—a system of financing that has hardly brought profit to those who have attempted it in any line of industry.

Prices today at New York were within a few points of the lowest figures to which that market receded in November last, while here about twelve points higher than the lowest of the same period. At Liverpool the market is the same for spots, and one-thirty-second lower for contracts than the lowest to which the market receded at corresponding dates in November.

The situation has largely resolved itself into one of supply out of the present crop, both present and prospective, without regard at the moment to what the next crop may bring forth in the way of quantity. It may be that the only solution of this question will be a continued large acreage, though less than last year, and to make cotton a matter of secondary consideration or a surplus crop.

The amount of this crop that will be in sight at the end of January will be about 7,850,000 bales, against 6,254,000 at the same day last year, and 7,200,000 in 1892, which was the season of the 9,000,000 crop year. That there will be marketed of this crop not less than 9,500,000 bales can hardly now be questioned by anyone, outside of what the growth of this crop may be; in other words, the difference between the two will be what does not come into visible supply in America. Neither is it at all unlikely we shall have 8,500,000 in sight on March 1. Therefore, to bring in sight 9,500,000 of this crop in twelve months ending September next means that in the remaining six months of the cotton year, after February, only 1,000,000 would have to be marketed, against 8,500,000 in the first six. If prices continue at their present level, or lower, the chances are that a relatively larger quantity will be carried over during the summer into the new crop than ever before.

We shall have in sight during the month of February nearly as much cotton as came into sight during the same month in 1892, so that the excess which may exist at the end of this month over the crop of that season will represent about the same excess on March 1 ensuing.

Mr. H. Pasch, of Havre, one of the acknowledged statisticians in Europe, gave Liverpool this morning an estimate which brought about some of the weakness realized there today by estimating this crop at 10,400,000 bales, against Neill Bros.' estimate of 10,250,000 bales; therefore to realize

the estimate of either of these crop-guessers there must come into sight from the end of January to the 1st of September next from 2,400,000 bales to 2,500,000 bales, in addition to what has already been brought into visible supply since September 1 last.

The movement reported weekly of what comes into sight is made up as follows: Port receipts; the excess in stocks at the visible weekly reported interior points over the previous week; also the overland movement to Eastern mills, which means cotton that does not appear at a seaport, and, again, a further addition of Southern consumption. If the weekly reported interior stocks show a decrease from the previous week, then such decrease is deducted from the total according to the above.

The world's visible supply of American cotton on September 1 last was 1,589,000 bales; to this, therefore, must be added the crop of this season to come into sight, which, if only 9,500,000 bales, will give a total supply of about 11,100,000 bales. Whatever shall come into sight in excess of 9,500,000 bales will, of course, be that much more to be added to the above total.

The consumption of American this season is estimated at from 8,500,000 bales to 9,000,000 bales. It would be safe to say that 8,750,000 bales would be a conservative estimate, and consequently if the supply is 11,100,000 bales there would be 2,350,000 bales of American cotton to be carried over on September 1 next into the new crop.

It shows, therefore, how absolutely necessary it is that there shall be not only a reduction in the area planted in cotton for the coming season in the Southern States, but that it shall be a sweeping reduction; otherwise, with a crop next year of 7,500,000 bales, in addition to the 2,350,000 bales carried over, would give nearly 10,000,000 bales supply for the next crop, beginning September 1, 1895.

These figures are of a bearish character, but we put them forth with the view of assisting to bring them to the attention of your readers, who are so largely represented throughout the South, in order that they may have the situation put before them—that is, the statistical weakness as it is just now and promises to be for the next twelve months or more, unless there shall be a most pronounced curtailment of the cotton acreage. ATWOOD VIOLETT & CO.

The Small-Mill Question.

CUTHBERT, GA., January 21.

Editor Manufacturers' Record:

My experience and observation leads me to the conclusion that less than a \$50,000 mill would not be safe as an investment. Smaller mills would pay as the property of a practical manufacturer who would give it his personal attention; practical manager would cost too much; the fixed charges would be heavy for a small capital to pay. The idea advanced by one of your correspondents to turn our gineries into factories would not do at all; it is wholly impracticable. This scheme has been tried to a limited extent, and proved an entire failure. Farmers are not manufacturers, and the laborers about a ginery could not be utilized, as they are generally colored men. The colored people have not worked as yet in cotton factories. In ante bellum days it was tried with slave labor in Georgia. What the result was I do not know. I trust you will be successful in turning many manufacturers South with capital and experience to more fully develop our section. There is a large class North that ought to be reached—that is, practical manufacturers with small capital who would like to start up a cotton-manufacturing business on their own account. We have some good mills in Georgia that are idle that could be leased or bought on reasonable terms. The Randolph Manufacturing Co. is one. It has been idle for one year. The mill belongs to two parties—one is a planter, and the other has a good

idea of the cotton-manufacturing business, but is too old to give it efficient attention. The capacity of the mill is from 350,000 to 400,000 pounds of yarn per annum. It is well located and in running order, and could be leased for one or a term of years, or bought.

D. R. McWILLIAMS,
Randolph Manufacturing Co.

Against Small Mills.

STONEWALL MANUFACTURING CO.,
STONEWALL STATION, MISS., January 31.
Editor Manufacturers' Record:

In regard to Governor Stone's recommendation of building small cotton mills through the entire South, we beg to say the writer does not agree with Governor Stone in his views, and feels sure that he is very badly mistaken. Our mill is many times larger than the small mills he advocates, and we have realized for several years that it is too small to pay the best possible dividends or to compete very successfully with larger mills. Again, it requires much better skill to handle a small mill than it does a larger one, so far as the mechanical manipulation is concerned. The writer has had twenty odd years of every-day, practical experience in managing, both in the mechanical and business departments of the Southern cotton-mill business, and from experience I say that a man who can successfully manage a large cotton mill would utterly fail in managing a very small one. Now, the reasons therefor: Large mills are able to pay good salaries, and thereby secure the best men to manage each and every department—men who have made a specialty of one department. Therefore, if the general manager is a good administrative officer, the mill will run itself. Small mills are only able to pay small salaries and command the poorer class of overseers, and then they even have to require one or two men to look after every department of the business, which is complicated, and requires as good skill in the smallest imaginable mill as would be required in the largest mills. And in these very small mills, say 1000 to 3000 spindles (while I imagine Governor Stone refers to mills of 100 to 500 spindles), the wages or salary of a thoroughly skilled, competent man at \$1 per day (while he would command in a larger mill \$2.50 to \$6 per day) would be relatively higher than \$10 to \$25 per day in the largest mills. It is also a positive fact that all skilled cotton-mill men prefer to work in large mills, even at a less salary, while this applies to the ordinary operatives. Again, it takes a lifetime to learn the cotton-mill business. Then, how can ordinary people, farmers, etc., without experience, pick it up and run small mills all over the country? It is utterly impossible. Again, these very small mills could never compete with the larger and well-organized mills. They would positively lose lots of money selling goods in the same markets and at the same prices that the larger mills would make handsome profits on. I hazard the guess that in any event these small manufactories would know very little about the market's wants, and how to produce goods that would be salable, and could never succeed in such an undertaking. Now, the writer is a strong and warm advocate of building cotton mills in the South, and while our State, Mississippi, has wisely and generously invited such institutions by promising immunity from taxation for a term of ten years, the proper plan is to build large mills all over the South, even if farther apart, as the small ones more generally distributed and in closer proximity to each other could never succeed. The writer is a native Mississippian, has spent his lifetime in the Southern cotton-mill business, has had a wide experience and a personal acquaintance with nearly every mill in the South, and has traveled extensively in the East among the shops and cotton mills, and thinks he knows whereof he speaks. It is

needless to say that I have at heart the interest of the South, and especially Mississippi, but am constrained to say that our esteemed Governor Stone is not on the right track in regard to the cotton-mill business.

T. L. WAINWRIGHT,
Secretary and Superintendent.

No Second-Handed Textile Machinery Wanted South.

The Manufacturers' Gazette, of Boston, referring to the building of mills in the South by Northern companies, says:

"There is but one course to pursue, and that is to give up coarse numbers of yarn and the lower grade of fabrics. But what does this involve? The discarding of a mill full of machinery and the substitution of other more suitable for the economical manufacture of the goods that are desired to be made. New and the very best of machinery must be had. Old machinery goes out of the factory to be sold as second-hand machinery. That cannot be done without the incurring of great pecuniary loss that no mill can really afford to do. Now it happens that there is no necessity for such a sacrifice, for a place can be found for this cast-off machinery in the South, where it can be utilized at a profit for the manufacture of the very grade of goods for which it was originally intended and to the making of which it has been operated. This building of cotton mills in the South by existing corporations in this State is a movement of relief from Southern competition, and is an economical business enterprise for reducing the loss in the rehabilitation of the mill with new machinery better adapted to new conditions to a minimum. Northern mills are to meet Southern competition on Southern soil, and turn their attention to the manufacture of fabrics in which the competition is less."

Probably no more absurd suggestion has been made by our esteemed contemporary than this suggestion of transferring old machinery from New England cotton mills to the South. We hardly believe that the shrewd New England cotton-mill manager proposes to take the old machinery out of his mill and transfer it to a new mill in the South, and expect to compete with mills that are being built under the most favorable conditions and equipped with the most modern machinery; and if the New England man does not propose to transfer his old machinery to the South for his own mills, he may as well make up his mind that the South does not propose to buy it for its new mills. The MANUFACTURERS' RECORD believes that the New England companies that build in the South will equip their mills with every modern improvement and with the latest and best machinery, rather than attempt to carry with them discarded or second-hand machinery.

Talking for Buncombe.

In the Boston Herald Mr. John T. Patrick, of North Carolina, is quoted as saying: "This section has nothing to fear so far as the finer grades of cotton are concerned. New England will continue to be the home of this branch of the business so long as she controls the market for the highest skilled labor. This is where the South is weak, and there appears to be no immediate prospect of improvement in this direction. Then again, there are certain climatic disadvantages to be found South which prohibit the attainment of best results in spinning the finest yarns." It may be true that Mr. Patrick made these statements, but if he did, the sooner he quits talking about Southern cotton-manufacturing business the better. We can hardly believe that a man who has had any opportunity of studying the South should make such wild statements as are here credited to him. They are so entirely without foundation and so wholly out of place that if correctly quoted, which we

trust was not the case, the only inference would be that he was trying to curry favor with New England, or, as the North Carolina saying goes, "was talking for buncombe."

Spindles in Operation.

An approximate statement of the number of cotton spindles in operation in the United States has been compiled for Dockham's Textile Report and Directory, which is soon to be issued. This statement is given out in an advanced proof, and a study of the figures presented point out the tendency of the cotton-manufacturing industry towards the Southern States. A comparison is made with 1892, and the gains in spindles in actual operation are shown. The figures for 1894 show 17,126,418 spindles in operation in the United States. This is about 840,000 spindles more than the figures for 1892. Of this increase the Southern States contributed 385,000 spindles, leading all other sections. The New England States were next, with 364,000 spindles added during the two years. It should be remembered that these figures cover the spindles in operation, and do not take in the mills under construction. Last year alone, as already shown in the MANUFACTURERS' RECORD, the new mills being built in the South footed up about 250,000 spindles. Mills already planned to be built this year will increase the South's spindles by 250,000. This is an extremely conservative estimate, and is under rather than over what results will prove. What the gains in the South's spindles during the year will be is difficult to figure out. Indications promise at least 500,000, but it would not be surprising to see the figures go higher. The four leading cotton-manufacturing States of the South, according to Dockham's table, increased their spindles during the two years as follows: Alabama 31,688, Georgia 48,998, North Carolina 146,290, South Carolina 118,479. Outside of Massachusetts but a little over 50,000 new spindles were put in operation in the other New England States. Rhode Island shows a decrease of over 9000 spindles.

A Small Georgia Bleachery.

BARNESVILLE, GA., February 4.

Editor Manufacturers' Record:

I note in your issue of January 25 a letter headed, "Looking for Location for a Bleachery," and would say that if the gentlemen who went through Georgia on a search for a bleachery site had stopped at Barnesville they would have found the quantity and quality of water they desire. Some assistance also can be had here from home capital for a bleachery. The town's water works has a reservoir 300 feet above the town supplied by spring water. We use a large quantity of bleached cotton, No. 20s, and formerly had to send East to buy it. It cost us then five cents per pound more than it costs us now. We have started a small bleachery for our own use only, with very satisfactory results. We can buy the cotton one cent per pound cheaper than in Philadelphia, one cent per pound for freight coming from Philadelphia, and get it spun here for three cents per pound less than we can East, saving, as I just said, five cents per pound, besides a profit for bleaching the cotton.

BARNESVILLE UNDERWEAR MILLS.

Texas Mills Consolidate.

The directors of the Dallas Cotton Mills and the Manchester Cotton Mills, of Fort Worth, met at Dallas, Texas, on the 29th inst. and declared a dividend of 10 per cent., ordered new machinery to almost double the capacity of the Dallas Cotton Mills, which is now about 11,000 spindles, and ordered the transfer of the Manchester Mills to Dallas. The object of the consolidation is to operate both mills under one management and save the transportation on

yarn with which the Dallas Mills have been supplying the Manchester Mills.

Bleachery and Dye Works.

L. Lanier, president of the Lanett Cotton Mills, of West Point, Ga., has returned from Boston, Mass., where he made all necessary arrangements with the stockholders of his company to erect a dye works and bleachery in connection with the mill. The dye-works building will be 80x100 feet, and of brick, and to cost in the neighborhood of \$25,000. This company will also erect 100 more new operative-houses.

Textile Notes.

ANOTHER cotton mill is talked of for Gadsden, Ala.

THE erection of a cotton mill is talked of at Columbia, Ala.

THE Pelham Mill, at Pelham, S. C., has put in a knitting plant recently, and is now turning out men's hose.

E. F. LANIER, of West Point, Ga., is said to be looking for a site for an Eastern company that wants to build in the South.

MR. GEO. A. SMITH is endeavoring to organize a cotton-mill company at Macon, Ga., and has already secured over \$41,000 in subscriptions.

THE projectors of the proposed cotton mill at Ozark, Ala., have been incorporated, and will at once endeavor to raise capital for a \$100,000 plant.

OWING to recent additions of machinery, the Wilmington (N. C.) Cotton Mills has found it necessary to put in a new Corliss engine, and order for one has been placed.

SUBSCRIPTIONS for \$30,000 have been received for the new cotton-mill company proposed at Birmingham, Ala. Mr. B. B. Comer is the prime mover in this enterprise.

IT is understood that the Langley Cotton Mills, of Augusta, Ga., owing to pressure of business, will enlarge its buildings to accommodate 10,000 more spindles and 400 looms.

THE management of the Exposition Cotton Mills, Atlanta, Ga., has been North placing orders for the new mill. An order for all the revolving flat-cards and drawing frames was given the Pettie Machine Works.

A MOVEMENT has been started at Americus, Ga., for a \$50,000 cotton-mill company, and a committee has been appointed to further the project. Messrs. J. W. Sheffield, U. B. Harrold, O. A. Coleman and others are interested.

THE Crawford Woolen Mills, now operating at Martinsburg, W. Va., has been incorporated as the Crawford Woolen Co. by N. H. Crawford and F. M. Crawford, of New York; T. L. Dunn, U. S. G. Pitzer and J. F. Thompson.

THE Cherokee Falls Manufacturing Co., of Blacksburg, S. C., has ordered revolving flat-cards and drawing frames for its new mill of the Pettie Machine Works, Newton Upper Falls, Mass. This mill takes the place of the one burned several months ago.

A COMMISSION to organize has been granted the Laurens (S. C.) Cotton Mill, with N. B. Dial, J. W. Ferguson and W. H. Martin as incorporators, its purpose being to manufacture cotton goods of all grades. The capital stock is placed at \$200,000.

THE business men of Sheffield, Ala., are endeavoring to complete arrangements for the erection of a cotton mill. A committee has been appointed to take charge of the matter composed of Messrs. J. B. Spruance, J. R. Crowe, J. T. Schley, W. R. Ruffin and C. B. Ashe.

THE directors of the Sweetwater Woolen Mills, of Sweetwater, Tenn., decided at their annual meeting on January 8 to in-

crease the capacity of the mill to 100 looms, which will be done immediately. The additional buildings will be erected as soon as workmen can get material. The additional machinery has already been ordered, and all arrangements for the increase completed.

MESSRS. CAMPBELL BROS. will at once erect a two-story building for the woolen mill reported last week at Chattanooga, Tenn. Messrs. M. A. & J. A. Campbell and W. F. Hutcheson are interested in this enterprise, and will invest about \$75,000 in the plant. An order for most of the machinery has been placed with a New England concern, including 100 looms. Nearly 200 hands will be employed, and site has been selected at East Lake. The firm will operate as the East Lake Woolen Mills.

THE Aiken Manufacturing Co., incorporated about a year ago, was formally organized at Aiken, S. C., last week. Mr. F. B. Henderson is president, and Charles Estes, of Augusta, Ga., treasurer, and the directors are Messrs. Estes and Henderson, H. M. Dibble, T. G. Barrett, Jr., A. C. Makepeace and Landon Thomas. The capital stock is \$400,000, of which over \$300,000 has been subscribed, and work will be commenced at once on the erection of a cotton mill on a water-power site near Bath, S. C. Mr. C. R. Makepeace, of Providence, R. I., will prepare the plans.

DR. I. T. TICHENOR, Atlanta, Ga., in a letter to the MANUFACTURERS' RECORD, referring to investigations that have recently been made by New England people for a site for a bleachery in the South, says: "I am not fully advised as to what are the things needed for the establishment of a bleachery, but, according to my understanding, I think I know a location well adapted for such purposes. Twenty miles south of Birmingham, and within one mile of Siluria, on the Louisville & Nashville Railroad, is a spring of pure, clear water, furnishing in the driest time enough to supply a small city. I think this would be a good place."

Substitute for Cotton.

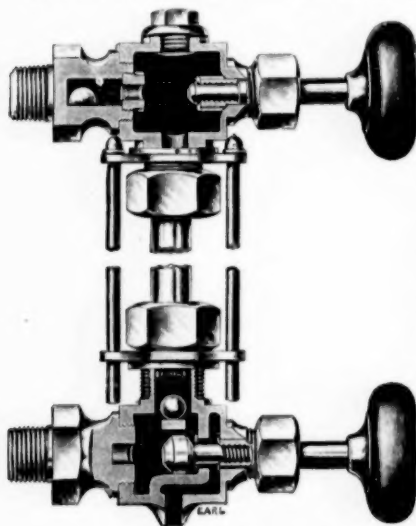
Tobacco cultivation in South Carolina has been demonstrated to be a success beyond question in certain parts of the State. It is a flourishing industry throughout the Pee Dee section of the State, but it has had its most successful and satisfactory developments in Darlington county. Ten years ago scarcely a pound of tobacco was grown in South Carolina for market. Last year 1,000,000 pounds were raised and marketed in Darlington county alone. The acreage devoted to the cultivation of the plant was not 5 per cent. of the acreage devoted to cotton, yet the value of the tobacco product was 16 per cent. of all the cotton raised in the county. The money value of the tobacco crop of the county was \$120,000. The tobacco acreage will be increased this year from 500 to 600 per cent., and a total crop of at least 5,000,000 pounds is counted on.

THE Mingo Coal & Coke Co., of Middlesborough, Ky., which, as previously stated, succeeded the Mingo Mountain Coal & Coke Co., is now pushing its coal-mining business very vigorously. This company sends out a circular letter stating that as an "all around" coal the "Mingo" has no superior in the United States, and its reputation grows constantly for its adaptability to domestic, steam and gas purposes. Increase in trade has required the rental of 100 cars, and the company anticipates increasing this to 200. The capacity of the mines is 1200 tons per day. Attention is also called to the "Mingo" coke for foundry, furnace, water-gas and steam purposes. This coke is prepared by disintegration, and is uniform in quality, containing 90 per cent. carbon and less than 10 per cent. ash.

MECHANICAL.

New Automatic Water-Gage.

We illustrate herewith an automatic water-gage containing several new features. As will appear from the illustration, this water-gage closes automatically by means of the two ball valves, which fly at once to their seats upon breaking of gage glass, effectually closing the gage against both water and steam. One of the new features is turning the handle of the upper valve as far to the left as possible, bringing the valve-stem out of line with the glass; then removing cap from top of gage, glass is dropped through, nuts and washers put on, and glass drops to its seat in the lower part of the gage. The gage is again put into service by first closing both valves to their seats against the boiler, as shown by dotted lines in the cut; then opening the lower valve about half a turn, when water will show in the glass; after which the upper valve is opened slowly; then the lower valve is opened full until it seats against the drain-cock chamber. The lower valve is double-faced, seating both against the boiler pressure and also against the drain-cock chamber to the right. This brings out the second new feature in this water-



NEW AUTOMATIC WATER GAGE.

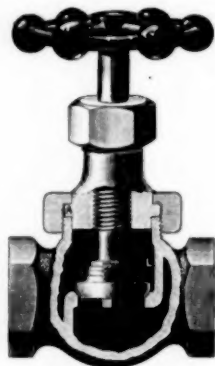
gage, which is that no pet-cock is used, but the gage is drained by half a turn of the lower valve-handle to the right, opening the drain passageway, and this also allows the lower valve to be used as a try-cock if the glass breaks and no new glass is at hand. Engineers who may suffer frequently from burnt fingers when draining water-gages by the pet-cock on the bottom will appreciate this improvement.

Another new feature is that the valves can be reground to their seats. This is accomplished by having the valve-stem run in a gland, which is tightened by the packing-nut of the stem. Valves are reground by releasing these packing-nuts about three turns, which allows the gland to slide in the body of the gage; valve can then be closed against either seat and reground by simply turning handle back and forth a few times. Both upper and lower shanks are screwed into the body of the gage. This permits the body to be taken off and cleaned without disconnecting the gage from the boiler. This water-gage is manufactured by the Penberthy Injector Co., of Detroit, Mich., having been recently patented by this company, and although only a short time on the market, is meeting with a very rapid sale.

Lunkenheimer's Regrinding Valve.

Herewith is presented a view of Lunkenheimer's regrinding globe valve, which possesses some features of special merit. Instead of the hub being threaded direct into the body of the valve, it is merely fitted into it plain and rests upon a flange which fits upon the upper edge of the opening, as

shown in the cut. The hub is then secured by a nut which fits over the flange, and is threaded to the outside of the body of the valve. The result of this arrangement is that the valve can be reground at any time with the greatest facility, all that is necessary being to loosen the nut, remove the hub, place a little sand and soap under the disk and then replace the hub, leaving the nut loose, so that the hub is free to turn with the stem during the regrinding. A piece of wire or nail is passed through a hole provided for that purpose in the lower end of the stem of the disk so that the disk will turn with the stem during the re-



SECTIONAL VIEW.

grinding, which, of course, it does not necessarily do when the stem is in use.

The hub being in place when the grinding is done, effectually centres the stem and holds it in proper place, so that the regrinding is done correctly. The valve can thus be readily ground while in position, and in many cases this does away with the necessity for breaking connections. The disk is also easily replaced when required. These valves (on account of having an outside thread and union connection for holding the hub to the valve shell) are easily taken apart, as it is stated, the hub will not "cement" into the shell.

These valves are made of gun metal throughout, tested and inspected before leaving the works, and, as a proof of their superiority, are extensively used in rolling mills, refineries, on locomotives, steamships, and in the United States Navy on cruisers, where the requirements are very severe. They are made by the Lunkenheimer Co., Cincinnati, Ohio.

A Notable Boiler Shop.

A new boiler shop which has attracted much attention by reason of its orderly and well-conceived arrangement is that lately finished at Racine, Wis., for the S. Freeman & Sons' Manufacturing Co. Its complement of equipment and machinery and advantageous construction make it what is believed to be the best equipped boiler shop in the West. A description in detail is of interest. The main building is 105 feet wide, 250 feet long. It is built entirely of brick and steel, the only wood entering into the construction being the window-frames and purlins to which the corrugated roofing is nailed. Twenty-six feet from each side is a row of posts which support the roof of the side wings; the main part of the roof is about forty feet from the ground floor. On each of the two rows of posts are large "I" beams, and on top of them a track. An electric crane with fifty feet span extends between the two rows of posts; this crane has a capacity of fifteen tons, and will be very handy in loading and unloading cars and for handling boilers anywhere in the shop. There has been placed in the shop a nine-foot one-inch Wood's hydraulic riveting machine with hydraulic hoist. A hydraulic flanging machine which will be capable of flanging heads up to seventy-two inches in diameter, and a new flange-punch and splitting-shears are to be installed.

A wing for the engine and boiler-room is to the side of the main shop, and is 36x72

feet in size. This room will also be used for accumulator and pump for the hydraulic riveting machine and for the electric dynamo for furnishing lights and electricity for the crane. It is built large enough to furnish room for several lathes and drill presses for the purpose of keeping tools in the shop in order. The boiler to run this plant is an eighty horse-power capacity, and the engine sixty horse-power automatic cut off. The shop will have a capacity of turning out 1500 to 2000 boilers a year, and will give employment, when run to its full capacity, to 150 men. The splendid facilities afforded by these important improvements will enable the S. Freeman & Sons' Manufacturing Co. to well maintain its policy of occupying a leading position in the production of all kinds of horizontal, vertical and marine boilers.

The Linham Rosette Cutter.

One of the late inventions in woodwork-machinery is the Linham rosette cutter recently brought out by the Linham Dado Machine Co., of Mansfield, Ohio, well known as the manufacturer of the Linham dado machine. The accompanying cuts illustrate this device. It is claimed to be the most improved and perfect rosette cutter on the market. This device cuts rosettes from three-quarters of an inch up without tearing or burning the wood, as it makes a shear cut. It is said that it will do the work in from one-fourth to one-tenth the time it takes by hand, and the largest and most elaborate rosette is turned

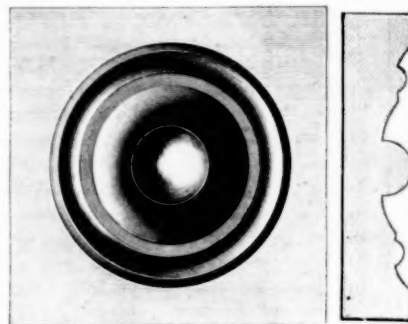


FIG. 1.

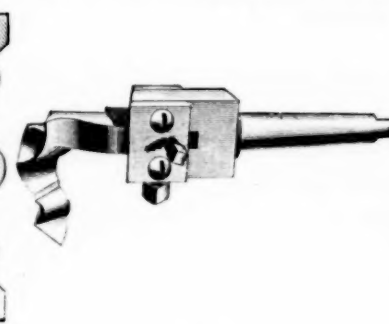


FIG. 2.

just as perfectly and quickly as a plain one. A boy, it is stated, can do the work as well as the most experienced turner, and every rosette is the exact duplicate of the others. The cutters are guaranteed by the maker to do the work just as represented, and after ten days' trial may be returned if not satisfactory. The Linham rosette cutter may be used in any lathe. It goes in the tail stock, and when ordering it will be necessary to give length of shank required and diameter of shank at both ends, so that the correct taper may be given to same. This tool is composed of the cutter-holder and a separate knife for each style of rosette required, so that it is only neces-

sary to have one holder, as any of the different styles of cutters will fit in same. Its details may be better understood by the directions given for operating, which are as follows: Place shank of cutter-holder in tail stock of lathe; then put a centre in opposite end of lathe; place cutter in holder and adjust up or down by the upper or lower set-screw until the cutting edge of cutter comes in line with the centre; then tighten securely with the side set-screw; fasten rosette on face plate the same as though it were to be turned by hand; screw spindle up containing cutter until rosette is cut to the required depth.

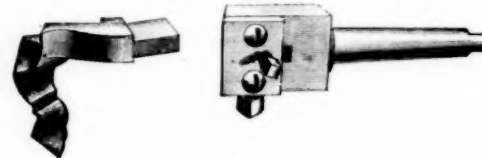


FIG. 3.

decline in the value of hog products, and the fact that a further reduction in oil values would be equivalent to selling at a loss—having in view the difficulty encountered in the disposal of cake—the situation may be said to have no previous parallel. Bearing on the subject of economical press-room work, let me remind the crushers that by turning their rolls, or rather grinding them to the form of perfect cylinders more frequently, the meats are more effectively crushed and the oil extracted with much greater facility. By operating rolls until hollow spaces are formed between, no more wasteful method of crushing can be con-

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

NEW YORK, February 5.

The quietude in the cotton-oil market remains unbroken; values have declined still farther, while the outlook gives no promise of material betterment. The experience acquired during the present season has been bitter, from the producer's standpoint. With the large quantities of marketable oil which the crushers are perforce constrained to carry along, the succeeding year's output, 1896, may be very materially reduced to avert a like contingency. The exceptionally low prices now current for crude and refined would, under anything approaching normal conditions of general trade, effect heavy sales for prompt and future delivery. Buyers are, however, remarkable for their apathy with regard to home and foreign consumption at current quotations. Local refiners purchase supplies sparingly. Towards the close of the week under review 2000 barrels of good off grade were disposed of for export at 26 cents. Should holders yield to the importunities of purchasers by accepting 26 cents for summer yellow, probably 500,000 gallons would find their way to foreign markets as rapidly as shipments could be effected. At this writing 25 cents is freely

ceived. The following are current prices: Crude, prime, 22 to 22½ cents; f. o. b. mills, 18½ to 19 cents; prime summer yellow, 26 to 26½ cents; off summer yellow, 25 to 26 cents; winter yellow, prime, 34 to 36 cents; yellow butter goods, 28 to 29 cents; winter white, prime, 35 to 37 cents. Cottonseed meal, spot or to arrive, is quoted at \$15 to \$17 per ton in quantities, and \$1 extra for small lots. Just what the outcome will be with regard to the cake and meal markets it is difficult to determine. Heavy cake stocks are found in all mill premises throughout the South, with scarcely an exception. The few who have succeeded in disposing of their holdings to an appreciable extent, even at prices below current figures, are again the exception rather than the rule. Several large parcels of meal have been disposed of in Memphis at \$13. The cold weather has slightly stimulated home consumption, and sellers are looking to the West as a temporary outlet as a consequence.

Cottonseed-Oil Notes.

THE Goliad cottonseed-oil mill at Goliad, Texas, is running day and night, turning out large quantities of hulls and cottonseed meal, which is being fed to several hundred steers by J. M. and L. Mathis.

A WASHINGTON special states that the Secretary of State has received through the State Department copies of letters recently received from Theodore Runyon, United States minister to Berlin, in which he recites the reasons given for the proposed increased duty from four to ten marks per 100 kilograms on cottonseed oil imported into Germany. The main reason given is that cottonseed oil enters largely into the manufacture of oleomargarine, and therefore comes in direct competition with the butter trade and affects injuriously the interests of German agriculturalists.

Alabama Wants Settlers.

The leading business men of Jacksonville, Ala., have organized the Alabama Immigration Co., with Gen. J. W. Burke, receiver of the Chattanooga Southern Railroad, as president; M. H. Lane, general manager; J. L. Crook, secretary, and Mr. George P. Ide, cashier of the Tredegar National Bank of Jacksonville, treasurer. It is the intention of this organization to secure large areas of land in the country around Jacksonville for the purpose of settling it with Northern and Western farmers. There is probably no more inviting field in the South for farmers from other sections than Calhoun county, Ala., of which Jacksonville is the county-seat. It is a county watered by many beautiful streams formed by mountain springs; it has a climate that could scarcely be improved upon in winter or summer, and it has a productive soil yielding freely of grains, grasses, fruits and cotton. If this company will vigorously work to attract settlers it can do great good not only for its immediate section, but for the whole State.

Wants Talc.

C. P. Pigman, of 212 West Second street, Cincinnati, wants to buy white talc. He desires to obtain the address of anyone owning a bed of this material or selling it.

MR. W. C. H. ROBINSON, of Robinson & Underwood, and Mr. J. H. Walker Coleman, late assistant general passenger agent of the Illinois Central Railroad, have organized a firm under the name of J. W. Coleman & Co. for the exclusive purpose of inducing immigration to Louisiana. In a circular letter just issued they say that they will devote exclusive attention to country real estate, and have for sale large tracts of land in Louisiana and Mississippi—sugar, cotton and rice plantations and property suitable for settlers generally.

PHOSPHATES.

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, February 7.

The local phosphate market has been dull and featureless during the week, in sympathy with the unsettled state of fertilizers, and manufacturers are doing very little in the phosphate line at present. Advices from the several points of production indicate considerable development, but the markets as a rule are dull, both in South Carolina and Florida. The tone of values is steady, as follows: South Carolina crude rock, \$3.50 to \$3.75; hot-air-dried, \$4 to \$4.25, and ground rock, \$6.50 to \$7, all f. o. b. Charleston. Florida rock is quoted \$3.25 to \$3.50 for river pebble, and \$4.65 to \$4.75 for land rock, all f. o. b. Punta Gorda or Tampa. The schooner C. S. Glidden was chartered on Wednesday to load phosphate at Ashpoo, S. C., for Baltimore. A New York charter reported is a British steamer, 1782 tons, from Fernandina and Virginia to Hamburg with phosphate and general cargo on private terms.

FERTILIZER INGREDIENTS.

The volume of trade continues very light in nearly all lines of material, and the market is dull, with few sales reported. Thomas H. White & Co., in their circular of the 1st inst., say: "Since our respects of the 1st ult. ammoniates have continued to drop. The adverse causes operating against any recovery now or in the near future are: 1. The low price of cotton and the anticipation of a much reduced acreage to be planted, and the consequent less output of manipulated fertilizer. 2. The large production and the low price of cottonseed meal prevailing through the South, enabling the manipulator to make his goods much cheaper with it than with animal matter. 3. The increased hog-killing since November 1, 1894, over that of 1893-94, is nearly 2,000,000 more, giving 7000 tons of tankage and blood in excess of product during same period last year. 4. The general depression in business and the uncertainties of the financial situation of the government tending to check operations. Notwithstanding, prices have receded slowly."

The following table represents the prices current at this date:

Sulphate of ammonia, gas.....	3 25@	\$3 30
Sulphate of ammonia, bone.....	3 20@	3 25
Nitrate of soda.....	2 00@	2 10
Hood meal.....	1 80@	1 85
Blood.....	1 95@	2 00
Azotine (beef).....	2 00@	2 05
Azotine (pork).....	2 00@	2 05
Tankage (concentrated).....	1 75@	1 80
Tankage (9 and 30).....	1 75	1 80
Tankage (7 and 30).....	17 00@	18 00
Fish (dry).....	22 00@	23 00
Fish (acid).....	15 00@	15 50

CHARLESTON, S. C., February 4.

The past week has seen some little improvement in the phosphate market. Sales have picked up somewhat and movement of rock is considerable, there being in port quite a fleet of vessels for coastwise. European shipments by the river companies continue heavy, and their dredges and plants are pushing work. Fertilizer shipments begin to pick up, and this week promises shipments that will amount to something. Prices are for crude rock, \$3.50; hot-air-dried, \$3.75 to \$4; ground, \$7, all f. o. b. Charleston. The shipments by water for the week were the J. C. Sweeney, 600 tons, for Alexandria. In port and loading are the May Williams, W. W. Rasin, Josephine, Wm. Johnson, E. G. Hight, N. W. Howlett, M. J. Lawrence, J. H. Tingle for coastwise, and the Zerbia for Russian ports. The Farmers' Mining Co., of Beaufort, is now loading a 2000-ton cargo for Japan. Several such shipments have preceded this. The shipments by water since September 1 were 33,780 tons crude and 1315 tons ground rock, against 46,450 tons crude and 300 tons ground rock for same date last year.

Phosphate and Fertilizer Notes.

MR. GARTNER, of the United States Phosphate Co., at Acme, Fla., is having a new dredge built, which will be in operation the last of the present month. He will also extend his dry-bin.

ADVICES from Bartow, Fla., state that the Belle Phosphate Co. has a force of men ready to commence operations at once. The superintendent, Mr. Moritz, expects big results. The company has a new duplex Hooker-Colville pump for its dredge, which is well adapted for mining.

A SPECIAL from Ocala, Fla., states that another phosphate deal was made on the 28th ult. Messrs. E. T. Williams and J. P. Peachier purchased eighty acres of rich phosphate land from Mr. C. W. Bauknight, near Rock Springs. The consideration was about \$5000. These gentlemen will put in a plant and begin operations at once.

THE British steamship Annandale sailed from Port Tampa on the 29th ult. with 1820 tons of phosphate from the Florida Phosphate Co., Limited, for Harburg, Germany, drawing nineteen feet of water. The British steamship Glenlivet was loading at Port Tampa on the 1st inst., and the steamship Baltimore City arrived on the 29th ult. from Philadelphia for a cargo of phosphate.

THE shipments of phosphate rock from the port of Savannah for the month of January are reported as follows: Steamship Maud for Austria with 1000 tons; steamship Silverdale, 727 tons, and Donau, 340 tons, for Germany; steamship Glendower for France, 2577 tons, and steamship Jeanara for England with 1000 tons, shipped by J. M. Lang & Co., making a total for the month of 5644 tons.

MESSRS. J. H. TATUM & CO., of Bartow, Fla., are said to have recently closed out 280 acres of phosphate land to Mr. John Beatty for the Bone Hill Phosphate Co. These lands are adjoining those upon which the Bone Hill plant is being erected, and a good portion of it contains a very fine phosphate deposit. The Bone Hill Phosphate Co. now owns one of the most valuable phosphate tracts in the country.

THE shipments of phosphate rock from the port of Fernandina, Fla., for the month of January were as follows: Schooner Blanche Hopkins, 865 tons for Cartaret, N. J., from the Pebble Phosphate Co.; steamship Holyrood, 1910 tons to Hamburg, by Arentz & Co.; steamship Glendower, 2015 tons to Hamburg, by Pickford & Winkfield; schooner W. Adams, 910 tons to Baltimore, from the Pebble Phosphate Co.; steamship Teelin Head, 1350 tons to Birkenhead, by Thuillier & Clark, and steamship Cairnmore, 2150 tons to St. Louis de Rhone, from the Dunnellon Phosphate Co.; total for the month 9200 tons.

A SPECIAL from Arcadia, Fla., says: "It seems certain that the consolidated phosphate companies will build a railroad from Arcadia to Hull, which is about eight miles. The contract for this part of the road is now let, and the hands are expected to go to work at once. They expect to continue it to Cleveland, where they can load the rock on large lighters and tow it to deep water for large vessels. They also expect in the near future to build a north end of this road from Scott's Siding, twenty-three miles above, to Arcadia. It will be built along the river banks, so they can take the rock from the dredge to the mill, as well as haul it on to deeper water for shipment.

ADVICES from Ocala, Fla., state that a transfer of the famous Brooks & Baker phosphate mine at Floral City, Citrus county, was made on the 26th ult. to M. Achille Laurent and C. Thalheim, consisting of 125 acres of land and two plants for mining. The amount paid for the property is supposed to have been some \$50,000. The purchasers are experienced phosphate

men. Mr. Laurent has been the manager of the French Company in charge of the Elliton mines in Citrus county, the extensive plants at Luraville in Suwanee county, while his partner in the purchase, Mr. Thalheim, was resident agent several years for the Anglo-Continental Guano Works, whose works are located in London.

THE phosphate shipments from Port Tampa, Fla., for the month of January are reported as follows: Steamship Beechdene from Land Pebble Phosphate Co. to Helsenburg, 3200 tons; schooner Olive Pecker from Bone Valley Phosphate Co. to Baltimore, 832 tons; barkentine Au Sable from Bone Valley Phosphate Co. to Baltimore, 568 tons; steamship British Crown from Land Pebble Phosphate Co. to Rotterdam, 2800 tons; schooner Thomas J. Mayo from Peruvian Phosphate Works to Pascagoula, 213 tons; schooner Emma Knowlton from Peruvian Phosphate Works to Mobile, 353 tons; steamship Largo Bay from Netherlands Phosphate Co. to St. Louis du Rhone, 2700 tons; steamship Annandale from Florida Phosphate Co., Limited, to Harburg, 1809 tons; total for the month, 12,475 tons.

THE railroad commission held its meeting at Columbia, S. C., on the 30th ult., at which the matter of fertilizer rates was considered by Messrs. Drake and Cardwell, of the South Bound, and Mr. Craig, of the Port Royal & Western Carolina road. Dr. Robertson, of the Globe Phosphate Co., represented the other side of the question. The discussion was lively and interesting throughout whether the rate on fertilizers should be reduced at this time or not in response to the demand that is made upon the board, especially from Anderson, S. C. The discussion developed the fact that the local rate on fertilizers had in the past year been reduced from \$4.40 to \$3.60 per ton, and that Georgia used about 300,000 tons, to 175,000 tons in South Carolina, while Virginia did not use over 100,000 tons. All of the members of the commission were present, but gave no intimation of what final action would be taken. At a subsequent meeting the commission decided by resolution not to interfere with the present rates on fertilizers. Its principal reason for non-interference is voiced in the following statement: "Believing that the changed conditions in this State necessitate the readjusting of all rates, and fully realizing the far-reaching effects of any change we might make, and realizing the fact that any reduction of freight on fertilizers now would be too late to be of any material benefit to the public if made this late this season, as thirty days' notice has to be given under the laws; therefore, be it resolved, that the board will meet on February 5 proximo for the purpose of beginning to revise the whole freight rates now in force in this State."

THE New York Tribune Almanac for 1895 is, if anything, more valuable in its reference features than past issues. Unusual care has been taken in its compilation, and the careful reader is really surprised at the large amount of diversified information inclosed within a comparatively small space. Statistics include political results, lists of government officials, legislation of Congress, lists of State officers, holidays, marriage and divorce laws, very full information regarding coinage and circulation, sporting records, astronomical data, etc. Altogether the work is well worthy of the shelves of any reference library.

A DISPATCH from Alexandria, Ind., says: "Alexandria has secured two large industries, the deal being just closed by Chicago capitalists. These concerns are a hard wire plant for the manufacture of all kinds of fencing wire, which will employ 400 men, and a plant to manufacture plows and cultivators and other farm machinery, which will employ 200 men."

Son, and was not insured. The dry-kiln will be rebuilt.

THE Nashville lumbermen have perfected arrangements to receive the Michigan Retail Lumber Dealers' Association, which will visit that city on the 13th inst. The party will number from eighty to 100.

A SPECIAL from Plaquemine, La., states that the demand for lumber is improving, and four of the mills on Bayou Plaquemine which have been shut down for some time are being put in readiness to start early in the present month.

THE Americus Furniture Manufacturing Co., of Americus, Ga., has opened an establishment at Tampa, Fla. It will manufacture its goods at Americus, and ship them "knocked down" to Tampa, where they will be finished up.

THE annual meeting of the stockholders of the Kentucky Lumber Co. was held at the Citizens' National Bank in Louisville, Ky., last week. There was no contest to the election, and the old officers and board of directors were elected.

THE receipts of lumber at the port of New Orleans for the week ending the 1st inst. amounted to 1,410,500 feet, and since September 1 they amount to 34,325,249 feet, against 34,750,016 feet for the corresponding period in 1893-94.

THE saw-mill department of the Loomis-Hart Manufacturing Co., of Chattanooga, is now busily engaged in sawing. About 3,000,000 feet have been received at Chattanooga this season. It is stated that at least 2,000,000 feet more will come down on the next rise.

THE Hughes Manufacturing Co., of Baltimore, Md., was incorporated last week for the manufacture and sale of furniture. The incorporators are Thomas J. Shryock, George F. M. Hauck, Jacob Hughes, Conrad Yost and Charles J. Tillman. The capital stock is \$20,000.

ABOUT 250 lumber dealers from Ohio arrived at Texarkana, Ark., on the 29th ult. They came on a special train over the Iron Mountain Railroad, and returned over the Cotton Belt. During their stay they were entertained by the lumber dealers and manufacturers of that section.

WEST BROS. have nearly completed their large mill at Westlake, in Hamilton county, Fla. Their railroad from that point to Ellaville is in good condition, and they are cutting and shipping from 40,000 to 50,000 feet of lumber per day. When their mill is fully completed their capacity will be 80,000 feet a day.

AMONG the clearances of lumber from the port of Brunswick, Ga., during the past week were the schooners Grace Davis with 284,000 feet, Ebenezer Haggett, 11,500 crossies for Philadelphia; Thelma, 460,000 feet of lumber for Boston; Wm. C. Tanner, 13,500 crossies for Havana, and the Spanish bark Luc with 204,000 feet of lumber for Palma.

THE annual convention of the Poplar Manufacturers' Association will meet in Cincinnati on the 8th inst. One of the principal objects of this meeting is to devise some means of obtaining better prices for their products, both in logs and lumber. It is expected that there will be a large attendance of both West Virginia and Kentucky members of the association.

ARTICLES of agreement and incorporation of the Burk & Bock Shingle Co., of Newport, Ark., were filed in the secretary of state's office at Little Rock last week. The capital stock is \$9000, and the incorporators are Geo. W. Decker and Frank S. Hess, of Newport; R. McCreery, of Black Rock, and William Burk and B. L. Bock, of Bono. The company will engage largely in the manufacture of lumber, shingles, etc.

MESSRS. WILLIAM GOETCHY and William D. Wheelwright and Co., projectors of the shingle mill at Brunswick, Ga., have leased

from Col. W. E. Kay the property front on Oglethorpe bay as a site for the erection of their extensive plant. The shingle mill is a new enterprise in Brunswick, and will give steady employment to fifty hands. The proprietors are now receiving bids for the erection of the mill. The contract will be promptly awarded and the work begin at once.

THE Kansas City Consolidated Box Co. has consolidated with the Fuller Bros.' Saw Mill Co., of Marked Tree, Ark., and hereafter the two plants will be operated under the corporate name of the Consolidated Box Co. The company will begin work in a few days on an addition to the box factory in Armourdale which will double the capacity of the plant. The improvements at the Arkansas end of the company's interests will consist of a large shuck factory which will be put into the mills at Marked Tree to supply the company's trade outside of Kansas City.

THE Union Association of Lumber Dealers of Ohio, Western Pennsylvania and Indiana, who passed through St. Louis about a week ago en route to the lumber districts of Arkansas, Southeastern Missouri and Texas, arrived in that city on Friday last. The members of the association were well pleased with their visit. Mr. E. A. Hildreth, of Columbus, Ohio, chairman of the excursion committee, said that prospects were very favorable for a large trade in the future with the sections visited. Another member of the association, and one of the heaviest timber dealers in Pittsburgh, said: "One result of our visit has been that the railroads hereafter will give the Arkansas, Missouri and Texas lumber shippers the same rates East as the lumbermen in Mississippi and Louisiana have enjoyed in the East. By reason of the discrimination in rates the East has heretofore patronized largely the North Carolina and Virginia timbers, especially pines. There is an abundance of most excellent timber in the portion of the States we have visited. We want it, and it is nothing more than right that those wide-awake people should enjoy their full share of our trade." The party left in the evening for Indianapolis, where they will separate and return to their homes.

Iron Markets.

CINCINNATI, February 2.

The varying phases of the currency problem as presented at Washington and New York has been the chief topic of interest during the past week, and the very natural effect has been to paralyze business for the time being. A few buyers, however, who are not moved by temporary alarms, and who think that there may be some future to the country after all, have entered the market and placed good-sized orders on very favorable terms. The aggregate tonnage is disappointing, because a very considerable business was looked for early in the new year. Many of the large manufacturers in the West, including those furnishing machinery for water-power, engines for electric plants, pumps and machinery for water works, and also car builders, were beginning to see enough work ahead to give them a busy and perhaps profitable season. The different jobs, however, have had a tendency to show their heads and then disappear again. There is no doubt that enough work has been planned in different lines of iron manufacture and construction to make an active demand for raw material if the enterprises were not held back by doubts and fears of the projectors.

Under these circumstances stocks have been increasing in furnaces both North and South. The tendency is towards restriction of output, for at current prices some of the companies that are strong enough to stop work and await the return of a profitable market will certainly do so.

A very little speculative interest has

been evoked by the extremely low prices current, but the natural timidity of capital under circumstances of depression has prevented anything coming to a head. A good many investors have been waiting for the time when iron reaches absolute bottom to put money into it, with the idea of staying with it for a year or two, but now that the lowest bottom is reached, the courage fails in most cases.

Well-informed manufacturers are not borrowing any undue trouble over the gold and silver deadlock in Washington. They argue that whatever may happen, things cannot be much worse than they are, so far as values are concerned. A money panic, which has been threatened, would be next to impossible, for credits are now down to a very close limit, and banks and individuals have an abundance of idle money. The fear of gold going to a premium, thereby withdrawing \$600,000,000 from the circulating medium, cuts little figure, for gold coin and gold certificates are already practically withdrawn by hoarding, and money remains altogether too plenty. There is every reason to believe that good will result from the present agitation, for the end will be to demonstrate more fully than ever before the faith of our people and of the world at large in the unlimited resources and credit of this great republic.

We quote for cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry.....	9 75@10 00
South. coke No. 2 foundry, and No. 1 soft.....	9 25@9 50
Hanging Rock coke No. 1.....	12 00@12 50
Hanging Rock charcoal No. 1.....	16 00@17 00
Tennessee charcoal No. 1.....	14 00@14 50
Jackson county stone coal No. 1.....	14 00@15 50
Southern coke, gray forge.....	8 00@8 50
Southern coke, mottled.....	8 25@8 75
Standard Alabama car-wheel.....	15 75@16 50
Tennessee car-wheel.....	15 50@16 75
Lake Superior car-wheel.....	14 00@14 50

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.....	10 75@11 25
Southern coke No. 2.....	10 00@10 25
Southern coke No. 3.....	9 75@10 00
Southern gray forge.....	9 50@9 75
Southern charcoal No. 1.....	14 00@14 50
Missouri charcoal No. 1.....	12 50@13 00
Ohio softeners.....	14 00@14 50
Lake Superior car-wheel.....	15 50@16 00
Southern car-wheel.....	16 75@17 00
Genuine Connellsville coke.....	4 50
West Virginia coke.....	4 50

NEW YORK, February 2.

The pig-iron market here is lame, halt and blind. Several large buyers of foundry iron say they will buy lots ranging from 500 to 1000 tons, but seem in no hurry to close. It would be a good business judgment, however, on their part to close, for in most instances, if shipment were ordered forward now, they would reach destination none too soon, as stocks in consumers' hands are unusually light. One large locomotive works is just using up the tail end of a 5000-ton purchase (Penna. No. 2 F.) that was made prior to the panic of '93. This iron cost \$18 at tidewater. It will only be a few weeks until the \$18 relics will have entirely disappeared.

We quote for cash f. o. b. New York:

No. 1 standard Southern.....	11 75@12 00
No. 2 standard Southern.....	10 75@11 00
No. 1 standard soft.....	10 75@11 00
No. 1 foundry lake ore coke iron.....	13 00@13 25
No. 2 foundry lake ore coke iron.....	12 50@12 75
Lake Superior C. C. W.....	15 75@16 00
Southern C. C. W.....	17 75@18 25

We quote for cash f. o. b. Philadelphia:

Standard Alabama No. 1 X.....	11 75@12 00
Standard Alabama No. 2 X.....	10 75@11 00
Strong lake ore coke iron No. 1 X.....	13 00@13 25
Strong lake ore coke iron No. 2 X.....	12 50@12 75
Lake Superior charcoal.....	15 75@16 00
Standard Alabama C. C. W.....	17 75@18 25

ROGERS, BROWN & CO.

Industries Going South.

Much interest and comment has been excited by the proposition of several cotton-manufacturing concerns in New Hampshire and Massachusetts to establish factories in the Southern States. The motive for such departures of enterprise is to have the mills for the manufacture of the coarser cotton goods in the midst of the field where the raw cotton is produced. This would save cost of freightage of the cotton from the South to New England mills. Manufactured goods can be sent to market in different portions of the country from Southern mills as well as from New England. Thus the cost of transportation one way will be

obviated. Besides, much of the coarser cotton goods is sold in the South. It is also claimed that an abundance of water-power can be utilized in the South, and where steam-power is most available a plentiful supply of cheap coal can be readily obtained in that section.

While some alarm is expressed in New England at this proposed partial removal of the cotton-manufacturing industry to the South, it is held that the making of the finer class of goods will continue to be carried on in the Eastern States, where manufacture has reached a high state of excellence under the influence of skilled management and labor. But it can be assumed that after the coarser manufacture shall have become firmly established in a large way in the South, the finer will follow as a natural sequence. If it shall be found profitable to run factories in the South for the turning out of coarse goods, why should it not be equally profitable to manufacture the finer in that section? Skilled labor will eventually emigrate from New England and settle at Southern points, where the climate is mild and living cheap.

What is developing in the cotton industry is an index to what will occur in other lines of manufacture. Already much of the iron and steel industry has been transferred to the South. Within a few years, if the politicians allow the country to again become prosperous, manufacturing will wonderfully develop in the Southern States. The effect of this will be to build up great industrial centres like those in New England, the Middle States and to a large extent in the Northwest. We have within the past twenty-five years witnessed the remarkable growth of manufacturing in the Western States, New England and the Middle States people once thought they had a monopoly of manufacturing in the entire country, and imagined that the West and South would be a perpetual and undisturbed market. The prospect was a brilliant one for the older manufacturing States. But through the development of manufacturing in the West, especially in Ohio, Indiana, Michigan and Wisconsin, the market for everything made of wood and iron has, within recent years, been largely supplied from the West. Such articles as furniture, wagons, agricultural implements and machines, musical instruments, engines, railway cars and appliances, tools of all sorts, house finishing, and a multitude of other articles made in the West are now sold in the Eastern States in sharp competition with the goods turned out in that section.

A like evolution is to take place in the South, and it will change the entire condition of population and society in that portion of the country. Large manufacturing centres will be established, and eventually they will fill up with white labor, as opposed to the negro service, which will be driven to the plantations and farms. A vast development of manufacturing will promote trade and a mercantile class which will augment city population and cause a demand for capital, buildings and the products of the soil. There is room enough in the South for an industrial population twice as large as now exists in this country. Once get the manufacturing industries started in that country on a scale commensurate with those of the North, and population will increase and towns and cities grow as a natural consequence. The lumber trade will share in the industrial development of the South. The building of factories and the growth of urban population will make a demand for lumber. A nearby home requirement is what the Southern lumber-producer needs to absorb his entire stock, including the coarser grades. Until big towns grow up in the South as they have in the North the Southern mill operator cannot thrive as does the Northern manufacturer of lumber.—Northwestern Lumberman.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

**In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Bozeman—Lumber Mill.—The Marbury Lumber Co. has ordered additional machinery for its mill.

Brundidge—Canning Factory.—J. A. McLane will establish a canning factory.*

Columbia—Cotton Mill.—The erection of a cotton mill is talked of.

Columbia—Electric-light Plant.—The city contemplates putting in an electric-light system. Address Geo. L. Campbell.*

Gadsden—Cotton Mill.—Another cotton mill is talked of.

Greenville—Water Works.—The city has petitioned for authority to issue \$20,000 of bonds for water works. Address the mayor.

Mobile—Mattress Factory.—The Mobile Mattress Co. has started a factory; Albert Herzfeld, manager.

New Decatur—Paper Car-wheel Works.—It is reported that the large machine foundry of the Decatur Car Wheel & Manufacturing Co. has been purchased by Chicago parties, who will at once overhaul the plant and begin the manufacture of paper car-wheels.

Nottingham—Industries.—The Nottingham Coal & Iron Co. has been reorganized and will establish industries. John Hancock is president; J. C. Caldwell, vice-president, and Adrian Holbert, secretary. New York office is 239 Broadway.

Sheffield—Cotton Mill.—The business men are endeavoring to locate a cotton mill. J. R. Crowe, J. B. Spruance and others are interested.

Sheffield—Iron Furnaces.—It is said that the three Cole furnaces of the Alabama Iron & Railway Co. have been purchased by Pennsylvania parties who will put same in blast.

Tuscaloosa—Water Works.—A bill has been introduced in the legislature to authorize the city to issue bonds for \$50,000 for buying and extending water works. Address the mayor.

Union Springs—Electric-light and Water Works.—The city will probably soon issue \$30,000 of bonds for electric-light plant and water works. Address the mayor.

Woodlawn—Canning Factory.—T. P. Walker and J. A. Were contemplate starting a cannery.*

Wyeth City—Grist and Stave Mill, etc.—The Wyeth City Manufacturing Co. has put in tight-barrel stave saw and grist mill, and contemplates putting in bark mill and hardwood broom handle machinery.*

ARKANSAS.

Little Rock—Boat Company.—The International Pneumatic Boat Co. has been incorporated with W. F. Hill, president; E. E. Wright, vice-president, and J. Kellogg, secretary.

Pine Bluff—Stave Mill.—The Indiana Stave Co., of Montpelier, Ind., will remove its plant to Pine Bluff; will employ fifty men.

FLORIDA.

Bartow—Foundry and Machine Shops.—John Henderson has purchased and will operate the Bartow Foundry & Machine Works; new machinery will be added.

Floral City—Phosphate Mines.—Carl Thalheim, of Ocala, and Achille Laurent, of France, have purchased the Brooks & Baker phosphate mines and plant for \$50,000.

Limestone—Gin and Saw Mill.—John Stofferl will build a saw mill, gin, etc.*

Quincy—Water Works.—The Quincy Water Works Co. has let contract to C. A. Stockey, of Belleville,

Ill., for the construction of its plant; bid was \$11,000.

Rock Springs—Phosphate Mines.—E. T. Williams and J. P. Peacher have purchased eighty acres of phosphate lands for \$5000; will put in plant and develop.

Sanford—Tannery.—Brooks & Rohrer are building a tannery.

Tallahassee—Telephone Exchange.—The Bell Telephone Co., of Atlanta, Ga., will construct a telephone exchange at Tallahassee.

Tampa—Cigar Factory.—Lazarus, Pends & Co. will build a three story brick cigar factory 50x120 feet.

Tampa—Cigar Factories.—M. Perez & Co., of New York, will start a cigar factory employing from 100 to 150 cigarmakers.

Tampa—Cigar Factory.—The Tampa & Havana Cigar Co. will erect a new factory.

GEORGIA.

Americus—Cotton Mill.—A plan is under way for building a \$50,000 cotton mill. Address J. W. Sheffield for information.

Atlanta—Paint Factory.—The Dunford Paint Manufacturing Co. has been organized with a capital stock of \$50,000, and will establish a factory. Randolph Southgate is president; D. P. Holland, vice-president; J. Stanford Daley, secretary, and J. W. Dunford, manager.

Atlanta—Machine Shops.—Plans have been made for the Southern Railway Co.'s new shops. The new buildings will include an erection shop 190x100 feet, blacksmith shop 80x200 feet, storehouse 40x290 feet, repair shop 240x65 feet and three woodworking shops 150x170, 60x33 and 100x190 feet.

Atlanta—Brick Works.—The Chattahoochee Brick Co. will enlarge its plant.

Atlanta.—C. W. Motes has incorporated a cemetery association; capital stock \$5000.

Atlanta—Electric Plant and Water-Power.—J. H. Vaile, of 39 Cortlandt street, New York; A. E. Thornton, of Atlanta; Hugh Garden, of New York, and Jno. Swann, also of New York, are organizing a company to build a large electric plant. It is proposed to expend \$1,000,000 in building dam and electric power-house on the Chattahoochee river, near Atlanta, to develop about 10,000 horse-power. Contracts have been let, it is announced, for dam and water-wheels.

Augusta—Cotton Mill.—It is reported that the Langley Cotton Mill will be enlarged to accommodate 400 new looms and 10,000 spindles.

Augusta—Clothing Factory.—J. C. Hathaway, of Norristown, Pa., will locate pants, shirt and overall factory at Augusta.

Brunswick—Shingle Mill.—The company lately noted, formed by W. D. Wheelwright and others, will be known as the Brunswick Manufacturing Co., and will erect a shingle mill. Bids are now wanted for the erection of the plant.

Columbus—Ice Plant.—Abe Ellis & Co. have purchased a 15 ton ice plant.

Columbus—Machine Shop.—William Adair has opened a machine shop in Phenix City.

Cordele—Telephone System.—D. H. Ledbetter will establish a telephone system.

Darien—Ice Plant.—The Darien Ice Co. is putting in a five-ton ice plant; machinery all purchased.

Griffin—Woodworking Factory.—The Osborn & Wolcott Manufacturing Co. will engage in the manufacture of chairs and coffins.*

Hawkinsville—Variety Works.—J. W. Arnold will establish variety works.

Macon—Cotton Mill.—Subscription books have been opened for a cotton-mill company, and over \$41,000 is subscribed. Address Geo. A. Smith.

Macon—Light and Water Plant.—The receiver of the Macon Gas Light & Water Co. has been authorized to put in new engine and dynamo, enlarge power-house, lay new mains, etc.; contracts all placed.

Macon—Lumber Mills.—T. J. Bell, T. G. Ware, J. O. Bell and others have incorporated the T. J. Bell Lumber Co. to deal in and manufacture lumber, etc. The capital stock is \$30,000.

Rockmart—Sienna Plant.—The Rockmart Sienna Co. expects to double its plant in the spring.*

Smithville—Electric-light Plant.—The erection of a small electric-light plant is contemplated. Address Wells Bros.

Valdosta—Telephone Line.—The Valdosta Telephone & Telegraph Co. has been organized to establish a line, and all arrangements are completed; J. D. Whitlaw, general manager.

Waycross—Buggy Works.—It is proposed to establish buggy works, and H. W. Reed has offered a free site.

West Point—Dye Works and Bleachery.—The

Lanett Cotton Mills will build a bleachery and dye works. Building will cost \$25,000.

KENTUCKY.

Elizabethtown—Ice Plant.—Joseph Haag has contracted for an ice plant.

Greenville—Water Works.—A system of water supply is talked of.

Louisville—Distillery.—Chas. E. Lemmon has purchased the Kentucky Comfort Distillery for \$50,000.

Paducah—Ice Plant.—The Paducah Ice Co. will enlarge its plant; machinery all ordered. Will also build cold-storage depot.

LOUISIANA.

Abbeville—Canal.—Work has begun on a very large irrigating canal about sixteen miles west of Abbeville, in this parish. R. R. Garland is interested.

Madisonville—Planing Mill.—W. T. Jay is building a planing mill; machinery ordered.

New Orleans—Abattoir, etc.—The New Orleans Abattoir Co. has been formed by Henry, Harman and D. W. Loewenstein, of Cincinnati, Ohio; S. D. Jackson, George L'Hote and others, of New Orleans, with a capital stock of \$250,000. This company will purchase and operate the People's abattoir plant at New Orleans. James Le Maarie is president; D. W. Loewenstein, vice-president and manager; George L'Hote, secretary-treasurer. The company will erect several new buildings, for which, it is said, machinery has been ordered. The plant will have a capacity of 1000 head of cattle a day.

New Orleans—Sash and Door Factory.—The Berwick Lumber Co. has put in additional machinery.

Patterson—Ice Plant.—St. C. L. De Gravelles has put in a three-ton ice plant.

Shreveport—Packing-house.—The city is striving after a pork-packing establishment, and a committee is negotiating with Eastern capitalists to that effect; Aug. Mayer is chairman of the committee.

MARYLAND.

Baltimore—Manufacturing.—The Hughes Manufacturing Co. has been incorporated with a capital stock of \$50,000 by Thomas J. Shryck, George F. M. Hauck, Jacob Hughes, Conrad Vost and Charles J. Tillman.

Baltimore—Implement Works.—Articles of incorporation have been filed of the Sinclair-Scott Co. for the purpose of manufacturing agricultural implements and machinery, and also for manufacturing canning machinery. The capital stock is \$12,000; incorporators, Robert P. Scott, William G. Atkinson, Harrison Cottingham, Augustine J. Ryan and Edward N. Rich.

Baltimore—Manufacturing.—The American Folding Box Machine Manufacturing Co. has been incorporated by Wilson H. Mules, A. K. Love, Howard M. Rollins and others with a capital of \$2000.

Baltimore—Refrigerating Plants.—A. S. Hoenes and Jno. Bien have each put in refrigerating machines.

Elk Ridge—Oil Refinery.—Howard Brown has fitted up a plant for refining oil.

Hagerstown—Elevator.—The Cumberland Valley Railroad Co. will erect a grain elevator at Morgansville.

Laurel—Planing Mill.—L. A. Ellis will build a planing mill.

Snow Hill—Telephone Line.—G. S. Bridge has organized the Snow Hill Telephone Co., and will construct a system.*

Snow Hill—Water Works.—The city has appropriated and sold \$18,000 in bonds for water works, and is ready for bids. Address Jno. P. Moore, mayor.*

Washington, D. C.—Refrigerating Plant.—Chris Rammling will put in a refrigerating plant; machinery all ordered.

Washington, D. C.—The Cairo Apartment House Co. has been incorporated with a capital stock of \$800,000.

Washington, D. C.—Electric-light Plant.—It is contemplated to put a \$50,000 electric-light plant in the Catholic University. Address Bishop Keane.

Washington, D. C.—Ice Plant.—Smith, Hallett & Co. are enlarging their plant with a 60-ton machine.

Washington, D. C.—Ice Plant.—The Washington Ice Manufacturing Co., Hall & Moore, proprietors, has been chartered with a capital stock of \$30,000. A 50-ton machine, to be run by water-power, and a complete ice-making plant on the plate system, have been purchased.

Williamsburg—Flour Mill.—Henry Hubbert has awarded contract for a 20 to 25-barrel roller-process flour mill.

MISSISSIPPI.

Aberdeen—Electric-light Plant.—The Southern

Equipment Co. has leased and will operate the city electric-light plant.

Aberdeen—Machine Shops.—The Illinois Central Railroad will build repair shops; site has been secured.

Amory—Engine Works.—J. R. Pearce proposes organizing a stock company to manufacture an engine which he has invented.

Hattiesburg—Planing Mill.—J. J. Newman is building a planing mill; machinery ordered.

Meridian—Broom Factory.—Farr Bros have started a broom factory.

MISSOURI.

Carthage—Electric Plant.—The Jasper County Electric Railway Co. will build a power-house.

Fulton—Wells.—The city will sink a deep well. C. H. McDonald can be addressed.*

Independence—Steam Laundry.—R. W. Whaley will establish a steam laundry.

Kansas City—Construction.—The Equitable Security & Construction Co. has been incorporated with a capital stock of \$50,000; incorporators, Theodore Stegner, John H. Fink and John H. Schmidt.

Kansas City.—The Banner Springs Lodge & Sanitarium Co. has been incorporated with a capital stock of \$50,000; incorporators, D. C. List, John Bayha, Edgar P. Sexton and others.

Monroe City—Water Works.—The construction of water works is talked of.

St. Louis—Commission.—The John R. Lewis Commission Co. has been incorporated with a full-paid capital of \$20,000 to carry on a general business in grain, etc. John R. Lewis, John T. Wallace and John P. Bergen are incorporators.

St. Louis—Importing.—The St. Louis Importing Co. has been incorporated with a full-paid capital of \$12,500 by Thos. J. Gibbons, Louise M. Gibbons and others.

St. Louis—Manufacturing.—The Missouri Glass Sand Co. has been incorporated on a full-paid capital of \$50,000 to carry on a general sand, silica and manufacturing business. The stockholders are James Morrissey, Charles H. Harkins and Daniel J. Murnane.

St. Louis—Paint Works.—The Gordon Wood Finishing Co. has been incorporated with a capital stock of \$2000 to manufacture shellacs, varnishes and paints. The incorporators are Chas. E. Van, Wm. B. Foster, Wm. D. Moss and Henry J. Nathan.

Warrensburg—Water Works.—J. H. Christopher has been granted franchise for water works.

NORTH CAROLINA.

Asheboro—Furniture Factory.—P. H. Morris and associates will erect a furniture factory in the near future.

Columbia—Saw Mill.—T. A. Armstrong will build a saw mill.*

Goldsboro—Woodworking Plant.—The Standard Manufacturing Co. has been incorporated to manufacture barrels, crates, baskets, etc.; Nathan O'Berry, president; J. A. Westbrook, vice-president, and S. S. Hardison, secretary.

Greensboro—Water Works and Electric-light Plant.—In the proposed amendments to the city charter is one to empower the city to issue \$25,000 to build or buy an electric-light plant, and one to empower issuance of \$75,000 to build or buy water works. Address the mayor.

Greensboro—Medicine Factory.—The new medicine company is known as the African Blood Cure Co.; E. L. Gilmer, secretary-treasurer.

Hickory—Water Works.—The city will vote on the 12th inst. on an issuance of \$20,000 of bonds for water works. Address E. B. Cline, mayor.

Lincolnton—Gold Mine.—W. H. Eurtan will develop a gold mine.

Pinnix—Mining.—J. W. Briggs and C. A. Beck have commenced mining.

Raleigh—Lumber, etc.—A bill has been introduced in the legislature by Mr. Pool to incorporate the Cedar Lumber & Shingle Co.

Wadesboro—Woodworking Factory.—J. W. Angle contemplates starting a woodworking factory.*

Whittier—Saw Mill.—P. P. McClane will improve his saw mill.

Wilmington—Cotton Mill.—A new engine will be put in the Wilmington Cotton Mill; order placed.

SOUTH CAROLINA.

Anderson—Telephone Line.—The Anderson Telephone Co., lately noted, has for president, R. E. Ligon; secretary, L. P. Brock, and superintendent, J. L. Maulding. System will be constructed at once.*

Bath—Cotton Mill.—The Aiken Manufacturing Co., incorporated last week, held a meeting at Aiken last week and formally organized with F. B. Henderson, president, and Chas. Estes, of

Augusta, Ga., vice president. Mill will be built at once; capital \$400,000.

Charleston—Fertilizer Works.—A commission for a charter has been issued to the Standard Fertilizer Co., to be located near Charleston. The incorporators are Geo. M. Trenholm, R. Goodwyn Rhett and W. C. Miller. The capital stock of the company is to be \$250,000.

Columbia—Land Company.—A commission for a charter has been issued to the McCreery Land & Investment Co., incorporators named being Chas. W. McCreery, B. B. McCreery, Jos. W. Muller, Wm. H. Lyles of Columbia; Chas. Frazier and J. W. Arthur, of New York; Wm. T. Spencer, of Montclair, and Robt. McCreery, of New York. The capital stock is to be \$100,000.

Columbia—Shoe Factory.—A shoe factory will be started in the State penitentiary. Address Colonel Neal.

Columbia—Cotton Mill.—The Richlands Mill Co., lately chartered, will erect mill at once, main building to be 308x76 feet, three stories high. An equipment of 10,000 spindles and 550 looms has been ordered.

Laurens—Cotton Mill.—A commission has been issued to the Laurens Cotton Mill; J. W. Ferguson, N. B. Dial and W. H. Martin, incorporators; purpose to manufacture cotton goods. The capital stock is \$200,000.

Pelham—Hosiery Mill.—The Pelham Mill has put in a knitting plant.

Sellers—Lumber.—A charter has been granted to the Sellers Lumber Co. with J. A. Atkinson, president, and J. C. McKnight, secretary-treasurer.

Spartanburg—Soap Factory.—The Carolina Broom Co. will establish a soap factory.

TENNESSEE.

Chattanooga—Woolen Mill.—Campbell Bros. will erect at once a two-story building for the woolen mill already noted as to be established. W. A. and J. A. Campbell, W. F. Hutcheson and others are interested, and they will invest \$75,000 in a plant to employ 200 hands. Machinery about arranged for.

Chattanooga—Electric Light Plant.—The Queen & Crescent Railroad will build an electric-light plant to cost \$6000. The machinery is now arriving.

Clarksville—Telephone.—F. P. Gracey, D. N. Kennedy, B. H. Owen and others have organized the Clarksville Telephone Co.; B. H. Owen, president, and M. Savage, secretary.

Elizabethton—Steel Plant.—W. M. Fuqua has stated that a company has been organized with Wm. Bell, of New York, as president, for the purpose of erecting a steel plant, and that all arrangements have been made. It is understood that the company has an option on the Knoxville Car Wheel Co. for 27,000 acres of ore lands near Elizabethton.

Jackson—Cotton Mill.—It is said that a New England company proposes to build a \$250,000 cotton mill at Jackson. S. D. Hays can be addressed for information.

Johnson City—Woodworking Factory.—R. G. Johnson and W. N. De Graat have established a locust pin factory.

Memphis—Fence Plant.—Taylor & Hannah are adding new machinery to their wire and wooden picket fence plant.

Memph's.—The Memphis Woollenware Manufacturing Co. has increased its capital stock from \$20,000 to \$50,000.

St. Elmo—Saddlery.—The Southern Saddlery Co., of Chattanooga, is erecting a new two-story 100x55 feet factory building in St. Elmo.

Sweetwater—Woolen Mill.—The directors of the Sweetwater Woolen Mills have decided to put in 100 additional looms; additional building will be erected.

TEXAS.

Alvin—Pickle Factory.—Mr. Meister, of the Acme Pickle Works, at Galveston, will establish a plant in Alvin.

Belton—Water Works.—The Belton Water Works Co. has increased its capital stock from \$100,000 to \$200,000.

Bridgeport—Coal Mines.—The Texas-Rock Island Coal & Stone Co. has sold its rights and franchises to the J. R. Stevens Coal Co., J. R. Stevens, of Gainesville, president and manager. New machinery, shafthouses and cages are being put in, and mining will be continued.

Cleburne—Compress.—It is rumored that a cotton compress will be built.

Dallas.—The Metropolitan Business College has been incorporated by J. H. Gillespie, J. C. Hill and W. A. Horford.

Dallas—Cotton Mills.—The Dallas Cotton Mills and the Manchester Cotton Mills, of Fort Worth, have consolidated, and the latter plant will be removed to Dallas. New machinery to double the Dallas plant has been ordered.

Fort Worth.—The Rhoads Metallic Pistol Packing Co., with a capital stock of \$5000, has been incorporated by John Rhodes, L. M. Hatchell and Ed Otto.

Hartley—Creamery.—A creamery company will probably be organized.

Lorena—Artesian Well.—The citizens have let contract to J. B. Fowler, of Waco, for the drilling of an artesian well.

Maverick—Coal Company.—Chartered, the Maverick Coal Co., of Maverick county; capital stock \$15,000; incorporators, F. H. Hartz and others.

Moody—Artesian Well.—The Moody Artesian Well Co., with a capital stock of \$25,000, has been chartered by J. C. Reynolds, C. J. Crow, Wm. Payne and others.

Paris—Telephone System.—The Anthony Telephone Co. will construct a system.

Pittsburg—Ice Plant.—W. L. Newsom is forming a company to erect an ice plant.

Pittsburg—Tannery.—J. W. Thomas, superintendent, has established a tannery.

San Antonio—Electric Light Company.—The San Antonio Electric Company has filed articles of incorporation. The capital stock is \$100,000, with R. T. McDonald, of New York and Fort Wayne; Edward J. O'Beirne and William H. McGaw, of San Antonio, as incorporators. Mr. McDonald will be president.

Silsbee—Saw Mill.—The Texas Pine Land Association's new saw mill, already noted, will have a daily capacity of 40,000 to 50,000 feet daily.

Taylor—Telephone System.—The city has granted a franchise to the Southwestern Telegraph & Telephone Co. for a telephone system, and work is to begin on the plant within the next two weeks.

Temple—Mercantile.—The Temple Grocer Co., with a capital stock of \$100,000, has been incorporated by C. U. Yancey, J. A. Walker and J. B. Garnett.

Waco—Compress.—The Geyser City Compress & Warehouse Co., with a capital stock of \$100,000, has been incorporated by J. S. McLendon, G. W. Neville and M. G. Haughton.

Webster—Saw Mill.—Credit & Co., of Canada, are building a saw mill. B. E. Turner is local manager.

Wesmar—Water Works.—The city intends to build water works. Address the mayor.

VIRGINIA.

Charlottesville—Flour Mill.—John L. Waters will put in machinery for manufacturing flour, meal, chops, etc.

Fincastle—Flour Mill.—J. N. Slicer will erect a flour mill.

Fredericksburg—Salting-house.—Numsen & Donaldson, pickle manufacturers, of Baltimore, Md., contemplate starting a salting-house at Fredericksburg.

Lynchburg—Electric-light Plant.—D. E. Evans, of Baltimore, Md., has prepared plans for Lynchburg's contemplated electric light plant. Address the mayor.

Norfolk—Land.—A charter has been issued to the Greater Norfolk Co. to acquire, develop, improve and sell real estate. The capital is to be \$5000. John Neely is president; C. K. Curtis, vice president; H. L. Page, secretary and treasurer.

Pleasant Valley—Flour Mill.—Kaylor Bros. have let contract for remodeling their flour mill to one of forty barrels, roller process.

Richmond Plaster Works.—A charter has been granted to the American Champion Plaster Co. with a capital stock of \$200,000 to manufacture a plaster recently invented by J. E. Summers, formerly of Chicago. W. A. Bryson is secretary and treasurer. Address care of A. B. Simpson, general counsel, Room 64, Chamber of Commerce Building.

Richmond—Abattoir.—The Valentine Meat Juice Co. will erect an abattoir.

WEST VIRGINIA.

Charleston—Mining.—The Niagara Mining Co., to purchase and acquire mining property, etc., has been chartered by James L. De Fremery, Brooklyn; John T. Brown, Frank P. Hoffman, Clarence M. Brennan, New York, and John R. Weeks, Newark, N. J.; maximum capital stock \$2000.

Elkins—Woodworking Plant.—Thos Leonard will erect a woodworking plant, including new two-story building 40x110 feet.

Martinsburg—Woolen Mill.—A charter has been granted to the Crawford Woollen Co., of Martinsburg, W. Va., the incorporators being N. H. Crawford and F. M. Crawford, of New York, and Thomas L. Dunn, U. S. G. Pitzer and James F. Thompson. The company's business is already established.

Parkersburg—Steel Plant.—F. C. Jones, representing the American Structural Steel Co., has made a proposition to establish a plant in Parkersburg.

Point Pleasant—Machine Shops.—The Kanawha & Michigan Railroad (J. M. Ferris, general manager, Toledo, Ohio) will build repair shops at Point Pleasant.

Salem—Water Works.—It is contemplated to build water works. Address the mayor.

Spencer—Oil Wells.—R. N. Miles, of Oil City, Pa., will develop oil lands in the vicinity of Spencer.

BURNED.

Brewton, Ala.—Cedar Creek Mill Co.'s dry house.

Cairo, Ky.—Hill, McMillan & Miller's planing mill; loss \$20,000.

Hancock, Md.—E. P. Cohill's bone and sumac mill.

Jackson, Miss.—The M. E. Holmes College; loss \$35,000.

Rome, Ga.—G. J. Briant's grist mill and gin in Chulio district.

Thomasville, Ga.—Lambert's steam laundry; loss \$2500.

Thomasville, N. C.—M. K. Gray's saw mill; loss \$6500.

BUILDING NOTES.

Anderson, S. C.—School.—The city will issue \$20,000 in bonds to build a schoolhouse. Address the mayor.

Atlanta, Ga.—The plant system of railroads will erect a building at the exposition. Address the general manager, Jacksonville, Fla.

Atlanta, Ga.—Bank Building.—Venable Bros. will erect a three story addition to the Gate City Bank building.

Baltimore, Md.—Church.—The First United Presbyterian Church will build a new structure; Rev. C. H. Robinson, pastor.

Baltimore, Md.—Church.—The Christ Reformed Church contemplates building a new structure; W. I. Stewart, pastor.

Baltimore, Md.—Residence.—G. W. & W. H. Carter have permits to build ten two story buildings, and C. A. Edward for seven two-story buildings.

Baltimore, Md.—Theatre.—J. B. McElfrick & Son, of New York, have completed plans for a \$150,000 theatre to be built by James L. Kernan.

Baltimore, Md.—Dwelling.—Contract has been let to J. T. Buckley for the erection of a new four-story building for St. Elizabeth's Home; will cost \$20,000.

Baltimore, Md.—College.—Contract has been awarded to Henry S. Rippel at \$125,595 for the erection of the City College.

Baltimore, Md.—Hospital.—An ordinance has been submitted appropriating \$15,000 to buy site and erect building for a horse hospital; F. C. Latrobe, mayor.

Baltimore, Md.—School.—An ordinance has been submitted appropriating \$35,000 for new building for primary school No. 18. Address F. C. Latrobe, mayor.

Bartow, Fla.—Hotel.—Clark & Tyre propose to build a 40 or 50 room hotel.

Bayou Sara, La.—Church.—St. James's congregation proposes building a church. W. L. Stevas has prepared plans.

Beaumont, Tex.—Warehouse.—W. C. Wall and C. L. Edmonston will build a warehouse.

Belton, Texas.—Opera House.—A. J. Embree will receive bids until February 7 for the building of an opera house.

Brookland, Md.—Church.—Contract has been awarded to H. E. Burgess and J. I. Whiteside for the erection of a church.

Brunswick, Ga.—Depot.—Brown & Garber write that plans are being prepared for a union depot to cost \$10,000.

Brunswick, Ga.—Church.—Brown & Garber have prepared plans for a M. E. church to cost \$2200.

Catonsville, Md.—Hotel.—A new \$100,000 hotel will probably be built after plans by Chas. D. Carson, of Baltimore. John Hubner can be addressed.

Charleston, S. C.—Proposals will be received until February 23 for iron stairs, wood flooring, joinery, vault doors, marble work, etc., in the United States postoffice building. Address C. E. Kemper, Washington, D. C. [See ad. in MANUFACTURERS' RECORD of February 8.]

Clarendon, Ark.—Courthouse.—Contract for building the new courthouse has been let to R. W. Lane, of Pine Bluff; will cost about \$10,000.

Cleburne, Texas.—Theatre.—S. E. Moss thinks of building a business and opera house.

Columbia, Ala.—Hotel.—J. F. Davis will build a hotel.

Cordele, Ga.—School.—It is proposed to build a school. Address J. J. Wheeler.

Covington, Va.—Hotel.—J. E. McClung has contract to erect addition to the Intermit Hotel.

Decatur, Ala.—Stores.—Jos. Nelson and F. H. Harrard will build two two story store buildings; will want plate-glass, etc.

Denison, Texas.—Roundhouse.—The Missouri, Kansas & Texas Railroad is preparing to commence work on its \$53,000 roundhouse.

Denton, Md.—Courthouse.—Plans prepared by Jos. H. Bernard for the new courthouse have been accepted.

Douglas, Ga.—Hotel.—B. Freston contemplates building a \$5000 hotel.

Gainesville, Texas.—Theatre.—It is proposed to organize a company to build an opera-house.

Georgetown, Texas.—School.—The city will expend \$4000 to enlarge school building. Address the mayor.

Griffin, Ga.—Courthouse and Jail.—The grand jury has recommended that bonds be issued for a new jail and courthouse. Address the county clerk.

Hagerstown, Md.—Depot.—The Cumberland Valley Railroad Co. will erect a freight depot at Morgansville.

Harmony Grove, Ga.—School.—The city will rebuild the recently burned school building. Address the mayor.

Huntington, W. Va.—Courthouse.—The question of building the new courthouse, lately noted, will be determined by the county court at its sitting on April 22 next; B. H. Thackston, president.

Hasca, Texas.—Depot.—The Missouri, Kansas & Texas Railroad will build a \$5000 depot.

Jacksonville, Fla.—Hotel.—N. Webster will expend about \$10,000 in improving the Hotel Everett.

Kansas City, Mo.—Stores.—It is proposed to erect twenty-five new brick stores on Grand avenue, and E. M. Wright is said to be interested.

La Follette, Tenn.—Hotel, etc.—Geo. F. Barber & Co., of Knoxville, are preparing plans for a three-story 30 room hotel with all modern improvements; also for three-story brick block 50x125 feet; also three-story brick block for La Follette Banking & Trust Co. Address La Follette Land & Improvement Co. (New York office, 54 Wall street).

Louisville, Ky.—Store, etc.—C. S. Kellar has prepared plans for a store and residence to cost \$5000.

Moberly, Mo.—School.—The city will erect a \$25,000 school building. Address the mayor.

Monroe, La.—Churches.—The Methodist congregation will build a new church and over \$5000 has been subscribed; a new \$20,000 structure is proposed; address Rev. E. N. Evans. The Roman Catholic congregation may build a \$40,000 structure. Address Rev. Fr. Enant.

New Orleans, La.—Residence.—B. D. B. Dixon will build a residence to cost \$11,700; Toledano & Reusch prepared the plans.

New Orleans, La.—E. D. Frederick has prepared plans for a row of houses for Judah Hart to cost \$12,000.

New Orleans, La.—Residences.—Plans have been prepared for a residence to be erected for W. C. Fulham, to have hot-air heating, laundry outfit, etc.; total cost \$3500. J. Manger has prepared plans for dwelling to have laundry outfit, electric bells, etc.; total cost \$3000. Same architect has plans for cottage for J. Wintz, to have electric bells, steam and gas fixtures, laundry outfits, iron fence, etc.; cost \$3200. D. Einsidel has prepared plans for dwelling for Henry Wenger, to have electric bells and lights, plumbing, steam and gas fixtures, hot-air heating, laundry fixtures; total cost \$1600. H. Maltby has prepared plans for residence for J. J. Manson, to have electric bells, incandescent lighting, laundry fixtures, hot-air and furnace heat; to cost \$15,000.

New Orleans, La.—Warehouse.—Toledano & Reusch have prepared plans for a tobacco warehouse for S. Hershman's Bros. & Co., to be three stories in height, brick, cement exterior, 50x90 feet, composition roof, iron beams and girders, hydraulic elevator, steam heating, etc., to cost \$6500.

New Orleans, La.—Synagogue.—Shaarah Tefillah congregation proposes building a new synagogue. Address A. Schafenberg.

North Wilkesboro, N. C.—Cottage.—J. G. Finley has let contract for a cottage.

Prattville, Ala.—Hall.—The city is petitioning for authority to issue \$5000 of bonds for a hall. Address the mayor.

Richmond, Va.—Seminary.—There is a movement on foot to remove the Union Theological Seminary at Hamden-Sidney, and if it is decided positively \$120,000 will be expended in buildings. Address Prof. W. W. Moore.

Richmond, Va.—Courthouse.—A resolution has been introduced by the Henrico county supervisors providing for \$40,000 of bonds for a court house.

Rockdale, Texas.—City Hall.—O. A. Watson, Austin, has prepared plans for the city hall for Rockdale, to be built of brick and terra-cotta, have fire-proofing, iron work, corrugated-iron roof, etc.; B. A. Colfield, mayor.

Smithville, Texas.—Hotel.—A company is proposed to build a hotel.

Spring City, Tenn.—School.—A \$50,000 school building will be erected by the Baptists of lower Tennessee.

St. Louis, Mo.—Temple.—The Masons are contemplating the erection of a new temple to cost about \$300,000. Address Samuel M. Kennard.

St. Louis, Mo.—Church.—The congregation of Second United Presbyterian Church will erect a new structure to cost \$20,000 to \$30,000.

St. Louis, Mo.—Dwelling.—Ben Graham will erect an \$18,000 residence.

St. Louis, Mo.—Dwellings, etc.—John P. Boyce will erect a \$5000 residence; P. Holscher, a \$5000 one; Mrs. H. D. Pittman, an \$8000 one; N. Brown, a \$15,000 one, and F. L. Sprague, three to cost

\$12,000. C. H. Poertner has prepared plans for a residence to cost \$4,000, and Strauss & Miller have contract at \$7,000 to erect four dwellings.

Thomaston, Ga.—The Weaver Merchandise Co. is reported as to build a brick building.

Victoria, Texas.—Storehouse.—Haller Bros. have let contract for a storehouse.

Victoria, Texas.—Residence.—J. J. Welder will build a \$20,000 residence.

Waco, Texas.—Hospital.—Dr. W. R. Cutler, of Corpus Christi, and S. A. McCall, of San Antonio, will build a hospital at Waco.

Washington, D. C.—Storage-house.—It is proposed to build a \$100,000 storage-house. Nelson Morris & Co., Swift & Co. and the G. H. Hammond Co. are interested.

Wheeling, W. Va.—Church.—Zion Lutheran Church contemplates expending \$7,000 in improvements; Rev. J. P. Hoh, pastor.

Wilson, N. C.—Warehouse.—A tobacco warehouse will probably be built. Address Anderson & Carter.

RAILROAD CONSTRUCTION.

Railroads.

Arcadia, Fla.—A movement is on foot to build a road from Arcadia to Hull and Cleveland, Fla. A line may also be built from Scott's Siding to Arcadia, twenty-three miles. Several phosphate companies in Arcadia are interested.

Ashville, Ala.—It is stated that efforts are to be made to extend the railroad now in operation between Whitney and Ashville to Anniston. James T. Green, of Ashville, is interested.

Augusta, Ga.—The Georgia Railroad Co., it is stated, is endeavoring to secure control of the Gainesville, Jefferson & Southern road from Gainesville to Jefferson, and to enter Dahlonga by completing the line already graded to that point. The total extension would be about forty-five miles, of which twenty-five miles is narrow-gauge line, which would be replaced. C. H. Phinizy is president of the Georgia.

Austin, Texas.—The Vining Coal Co. writes the MANUFACTURERS' RECORD that it is about to issue \$270,000 in bonds to build its 20 mile road from the Santa Fe system to its coal mines. W. L. Vining is president.

Baltimore, Md.—The work of ballasting the Baltimore & Ohio Belt road has begun, and one track has been laid.

Baltimore, Md.—Work of reconstructing the York Southern division of the Baltimore & Lehigh road has begun. It will be made a standard-gauge line. W. F. Walworth, of Cleveland, Ohio, is president.

Bartow, Fla.—The Board of Trade has indorsed the proposition to build a road with 60-pound steel rails to connect with the Florida Central & Peninsular at Plant City.

Cairo, W. Va.—An effort is being made in Calhoun county to raise a certain sum in stock subscriptions to extend the Cairo & Kanawha Valley road from the Ritchie mines its present terminus, to Grantsville, in Calhoun county. The extension would be twenty-five miles, making the entire line forty miles. The road is three-foot gage. H. S. Wilson & Sons, at Parkersburg, are heavy stockholders.

Cleburne, Texas.—Local parties are endeavoring to raise funds to build eight miles of road to Egan, Texas, to connect with the Missouri, Kansas & Texas system.

Conway, S. C.—It is stated that a company is being organized to build a road from Conway to Southport, N. C., at the mouth of Cape Fear river. A charter is to be asked from the North Carolina legislature.

Douglas, Ga.—Funds are being raised to complete the line surveyed between Douglas and McDonald.

Fernandina, Fla.—Business men are interested in forming a company to build a road to Fernandina from some point in South Georgia. H. E. Dotterer and C. A. Swann are interested.

Harrisonburg, Va.—P. W. Relford and W. H. Rickard are authority for the statement that contracts are being prepared for rails and rolling stock for the proposed line from West Virginia to tidewater on Chesapeake bay by way of Harrisonburg. About \$30,000 of Rockingham county's \$150,000 subscription to the road has been secured.

Hinton, W. Va.—Construction work has begun on the Hinton & New River road, surveyed from Hinton to Glen Linn along the New river valley. It will connect the Chesapeake & Ohio and Norfolk & Western systems.

Little Rock, Ark.—C. N. Hale and Richard E. Breed, of Chicago; T. J. Porter and N. L. Biles, of St. Joseph, Mo., are among the incorporators of the Chicago, Kansas & Arkansas Company, which proposes to build a line from St. Joseph to Little Rock, Ark. The road is to be 216 miles long and the capital \$3,456,000.

New Orleans, La.—The New Orleans Bureau of Freight and Transportation is formulating a plan to build a belt line connecting the several trunk lines entering the city.

Palmetto, Fla.—The Palmetto Terminal Railroad Co. has been organized to build a narrow-gauge road into the vegetable-growing region near Palmetto.

Quitman, Ga.—The project of building a road through Quitman, Ga., and connecting Americus with Tampa, Fla., has been revived. Judge Joseph and C. M. Hitch are among those interested.

Savannah, Ga.—The stockholders of the Atlantic Short Line have indorsed the proposal of the directors to issue \$380,000 in bonds to extend the road from its present terminus to Savannah.

Springfield, Mo.—The secretary of state has issued a certificate of incorporation to the Springfield, Harrison & Little Rock Railway Co. The headquarters of the company are at Springfield, Mo., and it has a capital stock of \$700,000. The company is organized to build a line of standard gage from Springfield south to the State line, a distance of sixty miles, through the counties of Greene, Christian, Stone and Taney. The incorporators are F. B. Rogers, J. K. Jones and T. B. Rogers, of St. Louis; W. T. Atkinson, of Philadelphia, and R. H. Laird, of London, Canada.

Valdosta, Ga.—It is stated that an organization called the Florida Round Timber Co. will build a road from Valdosta to Dutton, Fla., and eventually to Jacksonville, Fla. It will be used for hauling railroad ties, lumber and naval stores. It will connect with the Georgia Southern & Florida at Valdosta, and with the Florida Central & Peninsular at Dutton.

Wister Junction, I. T.—The Choctaw, Oklahoma & Gulf Railroad Co., which is extending its main line from South McAlester, I. T., to Oklahoma City, it is stated, has decided to build a branch from Wister Junction to Little Rock, Ark. Geo. S. Goode & Co. are contractors for the work now under way.

Electric Railways.

Boonsboro, Md.—The South Mountain electric railway project, which has been revived, is the line promoted from Boonsboro to Keeleysville. Some of the incorporators are R. J. Shafer and M. Bomberger, of Boonsboro. The capital is to be \$30,000.

Farmville, Va.—Parties in Farmville and Keysville are endeavoring to form a company to build a trolley road between those points. The distance is about twenty miles.

Long Beach, Miss.—Mr. James B. Cable, one of the directors in the Long Beach & Pass Christian Electric Co., writes the MANUFACTURERS' RECORD that the road will be between twenty and twenty-five miles long, most of it double track, laid on wooden piling, following the shore of Mississippi sound. No contracts for construction or material have been let as yet.

Nashville, Tenn.—Superintendent Spicer, of the Citizens' Rapid Transit Co., writes the MANUFACTURERS' RECORD that work is about to begin on an extension of the road three and a-half miles long.

New Orleans, La.—It is stated that the electric railroad proposed in Jefferson parish is to connect the towns of Algiers, Gretna and McDonoghville.

New Orleans, La.—The St. Charles Railroad Co. has received the steel rails for equipping its electric line, and construction has begun. M. Riviere is secretary of the company.

Sandy Springs, Md.—Congress has passed a bill incorporating the Washington, Burnt Mills & Sandy Springs Railway Co. to build a line from Washington into Montgomery county. R. L. Galt, Charles G. Stone and A. M. Stabler are among the incorporators.

Upper Marlboro, Md.—A project is being agitated to build a trolley line from Washington to Upper Marlboro.

Cable Railways.

Chattanooga, Tenn.—The Chattanooga Electric Railway Co. is considering a plan to build a cable railway on a part of the route to Lookout Inn. The idea is to have a platform hauled by cable power to carry electric cars up several steep inclines. C. E. Danforth is interested.

MACHINERY WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Barrel Machinery.—The Western Coopers Co., Kansas City, Mo., is in the market for tight and slack barrel machinery.

Boiler.—Lee N. Todd, Nashville, Tenn., wants to buy 66-inch by 16-foot boiler, sixty-four four-inch tubes, full front and stack complete.

Boiler and Engine.—T. A. Armstrong, Columbia, N. C., wants to buy a forty horse power boiler and engine.

Boiler and Engine.—Bradford Bros., Clarksburg, W. Va., will buy engine, thirty-five horse-power, side-crank, cylinder diameter 10x15 inches; a 50 boiler, fifty-two horse power, three-inch flue, twelve feet long, with forty feet of sheet-iron smokestack, etc.

Boiler and Engine.—A. H. Rice, Riceville, Tenn., wants a fifteen horse-power engine and a twenty horse-power boiler.

Boiler and Engine.—John Stoffer, Limestone, Fla., wants a fifteen horse-power boiler and engine.

Boilers and Engine.—The Texas Pine Land Association, Silsbee, Texas, will buy two 48x54 boilers and a 16x20 engine.

Brick and Cement.—A. J. Banks, Roanoke, Va., is in the market for 178 barrels of Portland cement and 180,000 hard burned brick.

Canning Machinery.—T. P. Walker and J. A. Were, Woodlawn, Ala., want canning machinery.

Canning Machinery.—J. A. McLane, Brundidge, Ala., will want canning machinery.

Cotton Gin.—John Stoffer, Limestone, Fla., wants a cotton gin and condenser.

Creamery.—J. D. Purnell, Myrtle, Miss., wants prices on butter and cheese machinery.

Creamery Machinery and Supplies.—Wanted, quotations on latest improved creamery outfit; also on patent glass milk delivery bottles. Address J. K. Cawthron, Valdosta, Ga.

Distilling Apparatus.—H. T. McCabe, Tampico, Mexico, wants to correspond with manufacturers or dealers in machinery for distilling perfumes.

Dry kiln.—B. Nooe, Jr., Pittsboro, N. C., wants prices on a dry kiln.

Dynamo, etc.—Camp Johnson, Easley, S. C., wants a small electric dynamo of twelve lights capacity; also wants wire and incandescent lamps.

Electrical Cables and Equipment.—The city of Baltimore, Md., will open proposals March 1 for 130,000 feet of bunched cables, etc. (See advertisement in MANUFACTURERS' RECORD of February 5.)

Electric-light Plant.—Geo. L. Campbell, Columbia, A. C., wants to correspond with electric-light contractors and builders of plants.

Elevator.—The Security Storage & Trust Co., Baltimore, Md., is receiving bids on passenger and freight elevator for warehouse, to be operated by gas engine.

Engine.—The McCoy Brick & Tile Co., Augusta, Ga., is in the market for a fourteen horse-power upright engine.

Gas Engine.—See "elevator."

Gasoline Engine.—Wanted, a stationary gasoline engine. Address H. A. Davis, Palatka, Fla.

Gin and Press.—B. Isaacs, Abbeville, La., wants a moss gin and press.

Grain Machinery.—A. H. Rice, Riceville, Tenn., wants cutter and elevator for silos pit.

Handle Machinery.—The Wyeth City Manufacturing Co., Wyeth City, Ala., will probably want handle machinery.

Heating Plant.—Geo. Hackett, 1009 Liberty street, Pittsburg, Pa., will want hot-water heating for dwelling.

Heating Plant.—W. J. Prentice, 1009 Liberty street, Pittsburg, Pa., wants the latest appliances for heating with water for residence.

Hoisting Engine and Drum.—The Greer Machinery Co., Knoxville, Tenn., is in the market for an eighty to 100 horse-power second-hand double-drum, with friction hoisting engine. It must be in No. 1 order.

Lathe.—Wanted, engine lathe; must be in good condition and cheap. Address F 659, Sun Office, Baltimore, Md.

Lathe.—H. W. Smithwick, Americus, Ga., is in the market for a gunsmith lathe, foot-power, screw-cutting, 40 inch bed.

Lumber mill Machinery.—The Ballman-Cummings Furniture Co., Fort Smith, Ark., will be in the market for steam-feed, steam-power hoist for logs and small gang-edger.

Mixer.—See "pulverizer."

Molding Machinery.—H. W. Smithwick, Americus, Ga., is in the market for machinery for making molding for picture frames.

Pipe and Covering.—The Rockmart Sienna Co., Rockmart, Ga., wants 300 or 400 feet of one-and-one-quarter-inch pipe, return bends and other steam fixtures; also 200 or 300 feet of pipe-covering, one and one quarter, two and three inches.

Planing Mill.—Bradford Bros., Clarksburg, W. Va., will buy complete equipment of machinery for planing mill.

Printing Outfit.—The Industrial Institute, Ruston, La., will need printing outfit; A. T. Prescott, president.

Pulleys, etc.—Bradford Bros., Clarksburg, W.

Va., will buy forty-eight feet two-and-three-sixteenths-inch line shafting and pulleys.

Pulleys, etc.—The Ballman Cummings Furniture Co., Fort Smith, Ark., will be in the market for pulleys and shafting.

Pulverizer and Mixer.—The American Champion Plaster Co. wants bids on machinery for grinding furnace slag to size of beach sand and to pulverize limestone; also mixer for mixing above and several other minerals in a dry state; grinders to have a daily capacity of ten to fifty tons. Address in care A. B. Simpson, general counsel, Room 64, Chamber of Commerce Building, Richmond, Va.

Pump.—A pump will be wanted by the city of Fulton, Mo. Address C. H. McDonald, water commissioner.

Pump and Injector.—The McCoy Brick & Tile Co., Augusta, Ga., is in the market for a steam pump, four inch inlet, three-inch discharge; also for Giant injector to supply two fifty horse-power boilers. Condition must be good and prices rock bottom.

Rails.—C. A. Epping, Carrabelle, Fla., wants to lease, with privilege of buying, about six or eight miles of 30 to 35-pound iron rails, second-hand, ready to relay.

Rock Drills and Compressor.—Wanted, an air compressor, either new or second hand, about sixteen inches diameter of cylinder, suitable for three or four rock drills; also two rock drills complete, either Rand or Sargeant. Address the New Soddy Coal Co., Soddy, Tenn.

Roofing.—Louis Duval, Ashland, Ky., will want roofing.

Saw Mill.—T. A. Armstrong, Columbia, N. C., wants to buy a saw mill.

Saw Mill.—The Texas Pine Land Association, Silsbee, Texas, will buy saw-mill equipment of 40,000 to 50,000 feet capacity daily, including edger, trimmer, cut-off saws, gummer, belting, shafting, etc.

Saw Mill.—John Stoffer, Limestone, Fla., wants a saw mill.

Soap Machinery.—The Carolina Broom Works, Spartanburg, S. C., will be in the market shortly for machinery and molds for soap (laundry) of about 500 to 1000 pounds daily capacity; desire also molds for candles.

Starch Machinery.—R. Q. Pinckney, Charleston, S. C., wants to correspond with manufacturers of machinery for making starch.

Stave Machine.—J. L. Taliaferro, 2009 East Grace street, Richmond, Va., wants a second-hand improved stave machine.

Stave Machinery.—The Rockmart Sienna Co., Rockmart, Ga., wants prices on new or second-hand machinery for slack barrel stock.

Telephone Equipment.—The Snow Hill Telephone Co., G. S. Bridge, Snow Hill, Md., wants 100 to 150 telephones, fifty miles of copper or iron wire, 1500 brackets, 1500 insulators, seven miles (two-conductor) submarine cable, 1500 poles (cypress or chestnut) twenty to twenty five feet long.

Telephone Equipment.—The Anderson Telephone Co., R. E. Ligon, president. Anderson, S. C., wants telephones, wire, poles, insulator pins, brackets, switchboards, etc.

Tobacco Machinery.—William J. Early, Darlington, S. C., wants machinery for manufacturing tobacco flues, tobacco baskets and metallic tobacco sticks or hangers.

Water Works.—Snow Hill, Md., is ready for bids on water works; \$18,000 appropriated; Jno. P. Moore, mayor.

Woodworking Machinery.—The Osborn & Wolcott Manufacturing Co., Griffin, Ga., wants a graining roller for coffins, a second-hand back-knife gage lathe for chairs, a second-hand pony planer for light dressing, and bending machine.

Woodworking Machine.—J. D. Bradshaw, Burkeville, Va., wants a machine for cutting slats five inches wide and three-eighths inch thick.

Woodworking Machinery, etc.—The Industrial School, Ruston, La., will need woodworking equipment and lathes; A. T. Prescott, president.

Woodworking Machinery.—J. W. Angle, Wadesboro, N. C., wants catalogues of machinery for manufacturing hop poles and staves.

Woodworking Machinery.—W. P. Haynes, Meridian, Miss., will want a matcher and molder later on.

H. T. McCabe, Tampico, Mexico, will want paper boxes and bottles and labels made to order.

Wm. Cummings, Aspen Grove, N. C., wants wheat in car lots.

Geo. Hackett, of 1009 Liberty street, Pittsburg, Pa., will want electric light fixtures, chandeliers, mantels, etc.

TRADE LITERATURE.

We have received from the Jos Dixon Crucible Co., of Jersey City, N. J., its blotter calendar for February. On same in a few well-chosen words the merits of Dixon's American graphite pencils are extolled.

The Puritan heating and cooking stoves for oil and gas are described and illustrated in a cata-

logue issued by the Cleveland Foundry Co., of Cleveland, Ohio. These goods are quite taking in design, and furnish an attractive leader to the trade. Their merits are illustrated by the popularity they have attained, and the many novel varieties shown evidence a growing demand for such wares.

THE latest ideas in the manufacture of belting are shown in a pamphlet sent out by Charles A. Schieren & Co., of New York city. As manufacturers and tanners of pure oak-tanned leather belting and lace leather for many years, the results of experience and careful notation of requirements are combined in the production of a superior class of goods. The pamphlet will interest users of belting.

A BRANCH of the hardware trade that dealers find a profitable and popular feature is the handling of specialties for household use. The many ingenious labor and time-saving devices which appeal particularly to the housewife are multiplying in number, and the demand for them is constantly growing. A catalogue just at hand illustrates the development of the hardware business in this especial line. It is issued by the North Bros. Manufacturing Co., Philadelphia, Pa. This concern confines its products almost exclusively to the household articles. Its catalogue presents an attractive list of improved devices which have won the approval of leading instructors in the art of cooking.

TRADE NOTES.

THE Pettie Machine Works, Newton Upper Falls, Mass., is shipping revolving flat cards to the Seaconnet Mills, Fall River, Mass.

THE Howard Park Brick Co., D. P. Montague, proprietor, of Chattanooga, Tenn., has just sold 450,000 brick to J. Van Valkenburg & Sons, Huntsville, Ala., to build two brick store buildings, each 50x141 feet, two stories high.

THE Dozier & Dutton Manufacturing Co., Cleveland, Ohio, is busily engaged in getting out some large contracts. This company manufactures electric motor and trail car trucks, and other equipment and special machinery for the street-railway business.

A. J. BANKS, Roanoke, Va., was the successful bidder for the construction of sewers at Roanoke. The competition was a lively one. Mr. Banks has handled successfully several important contracts of various kinds. He is at present engaged in building the Big Stony Creek Railroad.

THE Farrel Foundry & Machine Co., of Ansonia, Conn., has decided to build a new roll and machine shop, and has placed the contract for the building with the Berlin Iron Bridge Co., of East Berlin, Conn. The building will be 104 feet wide and 260 feet long, constructed entirely of iron, brick and glass. The roof will be of copper.

THREE large storehouses are employed by Frank Toomey, the well-known dealer in machinery and supplies of every description. The stock carried is of great variety and magnitude, embracing both new and second hand. A specialty at present to which attention is called is a fine stock of machine tools, large and small, and Corliss engines of latest types from thirty to 600 horse-power.

As a precaution against leaky roofs, a guard against fires and a durable and economical covering for buildings, gutta-percha roofing has proven a flattering success. The Empire Paint & Roofing Co., 111 North Fourth street, Philadelphia, Pa., manufacturer of this roofing, is supplying it to leading establishments all over the country. Many orders are received after a special study of the essential elements of such a roofing, and the uniform expression of approval shows that all the claims made for it are fulfilled.

WITH an increase of 30 per cent. in business over any former year, the Montross Metal Shingle Co., of Camden, N. J., is forging ahead in a healthy and stimulating manner. There is a more general appreciation of the merits of metal shingles, and as their advantages become better understood a corresponding increase in demand is noticed. This company is putting in a lot of new machinery, dies, etc., and will be better equipped than ever to handle orders. From the many inquiries and encouraging outlook it expects to double its business in the near future.

REFERRING to January business, Warren Webster & Co., of Camden, N. J., write: The month was a very good one in booking orders, we having received some very large ones, since we furnish our Webster vacuum feed water heater and purifiers, receiving in some contracts our payment in monthly savings in fuel until our invoices are paid in fuel, among which were the following: Glen Manufacturing Co., Berlin, N. H.; F. R. Walker & Son, Warren, Mass.; Sayles & Jenks, Warren, Mass.; Beaver Tinplate Co., New Lisbon, Ohio; the Johnson Co., Lorain, Ohio; Harlibut Paper Manufacturing Co., South Lee, Mass.; estate of C. H. McCormick, Chicago,

Ill.; M. Guggenheim's Sons, New York; Midvale Steel Co., Nicetown, Philadelphia, Pa.; J. H. Horne & Sons' Co., Lawrence, Mass.

IN consequence of securing a number of good contracts, and with its supply trade increasing every week, the Corbett Mill & Machinery Co., of Washington, D. C., is naturally elated with trade prospects. The policy of this company is of the broad-gage character that attracts patronage, and handling a superior list of equipment and machinery, satisfactory treatment makes new patrons permanent ones. The company is carrying a complete line of shafting, wood split pulleys, drop hangers and bearings of all kinds, also belting and other supplies, and is filling all orders from stock.

THE Globe Gas Engine Co., Philadelphia, Pa., is just occupying a new four-story brick building at 49th street and Merion avenue, and extending on the line of the Pennsylvania Railroad from 48½ to 49th street. The new works have been fully equipped with the latest and best machinery for manufacturing the marine and stationary engines built by this concern. These engines are of the "Pacific" and "Union" type, and are the same as manufactured by the Union Gas Engine Co., San Francisco, Cal. They have been before the public nine years, and about 2000 of them have been sold. The marine engines built by this company are one of the principal features of its business. It claims to have the only thoroughly-developed gasoline marine engine built in the United States. A specialty of this concern which is attracting considerable patronage is the construction of launches. The officers of the company are Russell Thayer, president; William J. Casey, vice-president and manager, and A. M. Biddle, secretary and treasurer.

THE courtesy usually extended to visitors in the inspection of the Ahrens & Ott Manufacturing Co.'s foundry and enameling works, Louisville, Ky., has received a severe set back, and in future high or low, large or small, will need to be identified beyond question of doubt before gaining access to its works. This condition is the result of a visit to its enameling department by a certain representative (?) who claimed to be "German imperial consul," a "royal mining and mechanical engineer," etc., who, because of his high station, was shown unusual attention, with liberties not accorded to the ordinary visitors. This royal consulate (?), it is claimed, proved to be a spy sent by a competitor of the Ahrens & Ott Manufacturing Co. to secure, if possible, the secret by which it has succeeded in producing its celebrated enameled baths. Overzeal on the part of the afore-named spy to consummate his designs resulted in his detection before securing any valuable information. He was abruptly dismissed and orders promulgated to allow no visitors without pass from the main office to enter the works.

THE manufacture of garden hose is a branch of the vulcanized rubber goods business to which much care is given by the New York Belting & Packing Co., 15 Park Row, New York city. This year's offering of goods in this department presents attractive features, both in quality and design. All the hose turned out is machine made and has seamless tubes, insuring evenness and uniformity in construction, compactness and durability. There are several grades for lawn and hydrant use. The brand "1846 Para" is widely recognized as a superior lawn hose. Fine quality of Para rubber and cotton duck are used in its manufacture, and this brand has now been on the market for nearly fifty years. A strong and durable hose warranted by the manufacturer is the "Double Diamond." Of cheaper grades that have proven popular, the "Carbon" and "Spider" brands are good examples. A rat proof and mildew-proof cotton hose is also produced by this company. An armored hose for rough usage is included in its products, which embrace as well hose reels, sprinklers and other brass goods in this line.

A COMPLIMENT of a high order is given the Remington Machine Co., of Wilmington, Del., by the selection of its machinery for a refrigerating plant for the anatomical laboratory of the Johns Hopkins University, Baltimore. Other recent contracts closed by this company indicate a general appreciation of the merits of its product. Recent orders included: Charles Zies, Baltimore, who is putting in refrigerating machines for A. S. Hoenes and John Bien, both butchers in Baltimore; North Packing & Provision Co., of Boston, Mass., a refrigerating plant to be in operation in thirty days; Chris Rammling, a butcher of Washington, D. C., complete refrigerating plant for his place; 15 ton Remington ice plant for William Curry's Sons, of Key West, Fla., under way. The New York Condensed Milk Co. has contracted with the Remington Machine Co. for complete refrigerating plants for its factories at Brewster, N. Y., and Carpenterville, Ill., to be in operation by April 15. This will make six Remington machines that this company will have in use at its various factories. The Remington refrigerating plants at the Eutaw House, Baltimore, and the Hotel Raleigh in Washington, D. C., have been recently started up, and are working in a satisfactory manner.

Literary Notes.

THE North American Review for February opens with three timely and important articles on "The Financial Muddle," written, respectively, by the Hon. J. Sterling Morton, Secretary of Agriculture; Representative William M. Springer, chairman of the House committee on banking and currency, and Henry W. Cannon, president of the Chase National Bank of New York, and formerly comptroller of the currency.

AN intimate friend of Lincoln's, Col. A. K. McClure, has made a study of Lincoln from a quite new point of view, showing, by anecdotes and letters, that during the civil war, especially in the earlier part of it, Lincoln was commander-in-chief of the army not in name only, but in fact, and personally planned and directed movements and campaigns, and in his comprehension of military affairs disclosed the qualities of a great general. The article is to be published in the February number of McClure's Magazine.

EVERYONE is prepared to admit that the banking system of the United States exercises a widespread influence on the business affairs of the country. Its ramifications extend into every circle, and directly or indirectly interest every citizen. There are, however, few who are fully acquainted with the exact relation of this great financial system to the business prosperity and money of the United States. A book published by Rand, McNally & Co., of Chicago, Ill., gives a connected and popular explanation along these lines. It is called the "Banking System of the United States." The author is Charles G. Dawes, of Lincoln, Neb. The writer is a business man, and discusses the service of banks to the community in the light of personal and practical observations.

JOINT-METALLISM is the panacea for our financial evils which is offered by Anson Phelps Stokes in a book under that title. The second edition of this book has been brought out by G. P. Putnam's Sons, New York city. This edition has two additional chapters, viz., "Joint-Metallism vs. Bi-metallism and Monometallism," and a history of the science of money and coinage. The author presents his plan, which is a novel one, with the thorough conviction of its correctness. Joint-Metallism, as defined by the writer, is a plan by which gold and silver together, at ratios always based on their relative market values, may be made the metallic basis of a sound, honest, self-regulating and permanent currency, without frequent recoinings and without danger of one metal driving out the other.

"DAISY" is a quaint little creature who pets a big yellow cat, and proves herself an angel of mercy in checking a downward career and turning to noble purposes a life somewhat warped. The story is interestingly told, and, with its incidental lessons and final happy ending, makes wholesome reading. It is an English tale, and the author is Miss Marshall Sanders. Charles H. Banes, 1420 Chestnut street, Philadelphia, Pa., is the publisher. "Beautiful Joe," by the same author and from the same publisher, is the autobiography of a dog. Nearly all the incidents of the story are founded on fact. "Beautiful Joe" belonged to a master who mistreated him, and is rescued in thrilling style and given a happy home. With his new friends, various incidents occur to heighten interest in the story of the affection and respect which the animal entertains for his benefactors. The impressions of the animal are told in an entertaining manner, and the book is of a character calculated to encourage kinder treatment of brute animals. It is issued in an attractive style and well illustrated.

TABLE OF CONTENTS.

EDITORIAL	Page
Fighting Their Own Section.....	17
Self Help the Best Help.....	17
Less Cotton; More Corn.....	17
A Good Example to Follow.....	17
New England Sees the Handwriting.....	17
Do You Want to Reach New England People?.....	18
No Second Hand Machinery.....	18
Baltimore and Its Relation to the South.....	18
A Big Electric Power Enterprise.....	18
A Lumber Trust.....	18
Pig Iron at \$5 a Ton.....	19
Why He Is Coming South.....	19
Our South American Letter.....	20
Effects of the Florida Freeze Exaggerated.....	20
FINANCIAL NEWS:	
New Financial Institutions.....	20
New Bond and Stock Issues.....	20
Interest and Dividends.....	20
Financial Notes.....	20
Good Southern Collections.....	20
New Market for West Virginia Coal.....	20
RAILROAD NEWS:	
A Critic Criticised.....	21
An Important Texas Line.....	21
Chance to Build a Road.....	21
Across the Virginias.....	21
New Route to Chicago.....	21
In Receivers' Hands.....	21
Southern Railroad Notes.....	21
TEXTILES:	
An Improved Baling System.....	22
New Mill at Columbia, S. C.....	22
The Cotton Situation.....	22
The Small Mill Question.....	22
Against Small Mills.....	22
No Second Handed Textile Machinery Wanted South.....	23
Talking for Buncombe.....	23
Spindles in Operation.....	23
A Small Georgia Bleachery.....	23
Texas Mills Consolidate.....	23
Bleachery and Dye Works.....	23
Textile Notes.....	23
Substitute for Cotton.....	23
MECHANICAL:	
New Automatic Water-Gage (Illus.).....	24
Lunkshimer's Regrinding Valve (Illus.).....	24
A Notable Boiler Shop.....	24
The Linham Rosette Cutter (Illus.).....	24
COTTONSEED OIL:	
The Markets for Cottonseed Products.....	24
Cottonseed-Oil Notes.....	25
Alabama Wants Settlers.....	25
Wants Talents.....	25
PHOSPHATES:	
Phosphate Markets.....	25
Phosphate and Fertilizer Notes.....	25
LUMBER:	
Lumber Market Reviews:	
Baltimore.....	26
Norfolk.....	26
Charleston.....	26
Jacksonville.....	26
Mobile.....	26
New Orleans.....	26
Beaumont.....	26
Southern Lumber Notes.....	26
Iron Markets.....	27
Industries Going South.....	27
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	28
Building Notes.....	29
Railroad Construction.....	30
Machinery Wanted.....	30
Trade Literature.....	30
Trade Notes.....	31
Literary Notes.....	31

THE business men of New Berne, N. C., have formed an organization to lay before the manufacturers of the North who contemplate moving South the inducements and advantages of this vicinity.

Winter Tours to Texas and Mexico.

THE easiest and best way to reach the winter tourist resorts of Texas and Mexico is via the International Route (International & Great Northern Railroad), which forms a portion of the short line from Chicago, St. Louis and Memphis to Austin, San Antonio, Houston, Galveston, Laredo and principal Mexican points. Through Pullman sleepers, without change, daily between Chicago, St. Louis and Austin. San Antonio and Laredo, St. Louis and Houston and Galveston, Memphis and Austin and San Antonio via Cotton Belt Route and Tyler, and between Dallas and Austin and San Antonio via Hearne. Call on nearest ticket agent for rates, time-tables and full information, or for printed matter descriptive of Texas and Mexico, address D. J. Price, assistant general passenger agent, Palestine, Texas.

Alphabetical Index of Advertisers.

For "CLASSIFIED INDEX" SEE PAGES 3, 5 AND 7.

A	Abbott, B. S. *	Adams, S., & Son. *	Aetna Foundry & Machine Co. 32	Ahrens & Ott Mfg. Co. 15	Albro, E. D., Co. 24	Allen, Chas. A. 40	Allington & Curtis Mfg. Co. 34	Alsing, J. R., Co. 18	American Banking & Trust Co. 21	American Bridge & Iron Co. 13	American Hoist & Derrick Co. 4	American Imp. Anti-Frict. Met. Co. 34	American Promoting & Trust Co. 37	American Screw Co. 37	American Ship Windlass Co. 16	American Spiral Spring Co. 10	American Supply Co. *	American Well Works. 32	Anthony Co. 39	Aragon Hotel. 33	Armstrong-Herschell Co. 33	Armstrong, Robt. S., & Bro. 32	Artesian Well Drilling Co. 32	Asbrand, C. W. 26	Atkins, E. C., & Co. 28	Atkins, Jos. L. 8	Atlanta Supply Co. 11	Atlanta Terra Cotta Co. 24	Atlas Engine Works. 14	Austen, Peter T. 6	Automatic Water Tank Co. 20																			
B	Babcock & Wilcox Co. 15	Bailey-Lebby Co. 17	Baile, Geo. A. 21	Baldwin Locomotive Works. 13	Ball, Geo. C., & Co. 23	Baltimore Engraving Co. 36	Baltimore Storage & Light Co. 35	Barnard & Hoopes. 39	Barnes, W. F. & John, Co. 12	Barnett & Record Co. 34	Barrett, S. E., Mfg. Co. 27	Bartl, Edmund A. 6	Bates, Jas. 9	Battle Creek Steam Pump Co. 40	Bauder, F. S., Secy. 36	Bay Line. 35	Beach, H. L. *	Beckley, A. J., & Co. 17	Bel en Machine Co. 27	Benjamin, L. R., Investment Co. 37	Bennet D. S. 29	Berger Mfg. Co. 27	Berlin Machine Works. 29	Berry & Orton Co. 29	Bes y, Chas. H., & Co. 40	Bickford Drill & Tool Co. 12	Big Four Route. 35	Birmingham Boiler Works. 9	Block-Pollak Iron Co. 24	Bolles, J. E., & Co. 27	Boomer & Boschert Press Co. 21	Boston Belting Co. 11	Bowman, A. B. 22	Pox 6. 22	Box 10. 22	Bradley Pulverizer Co. 18	Bradstreet Co. 35	Braxton, Carter M. 36	Brewer, H., & Co. 25	Brighton Machine Works. *	Brooks, T. H., & Co. 26	Brown & Garber. 6	Brown Electric & Machinery Co. 39	Brush Electric Light & Power Co. 22	Buckeye Iron and Brass Worl s. 14	Buckeye Mfg. Co. 16	Burnham Bros. 33	Burns Mfg. Co. 25	Burt Mfg. Co. 10	Byers, Jno. F., Machine Co. 4
C	Caldwell, H. W., & Son Co. 2	Caldwell Land & Lumber Co. 24	Callahan & Lewis Mfg. Co., Ltd. 8	Camden Steel Roofing & Cor. Co. 27	Cameron, A. S., Steam Pump Wks. 32	Cameron & Barkley Co. 19, 23	Canby, Edward T. 24	Capital Stained Glass Works. 26	Cardwell Machine Co. 30	Carlin's Sons, Thos. 23	Carnell, George. 25	Caroline Iron Works. 31	Carter's, Jno. S., Dairy Sup. House. 10	Carver Cotton Gin Co. 30	Cassell, Chas. M. 6	Central Manufacturing Co. 24	Chapman, Wm. A., & Co. 6	Charlotte Dye Works. 31	Charlotte Machine Co. 31	Charlotte & Pruitt. 6	Chattanooga Fdy. & Pipe Works. 31	Chattanooga Paint Co. 27	Chattanooga Steel Roofing Co. 26	Chester Steel Castings Co. 13	Chicago Scale Co. 10	Child, Chas. T. 39	Chrome Steel Works. 13	Church Isaac. 10	Cincinnati, Hamilton & D. R. R. 35	Cincinnati Machinery Co. 22	Cincinnati Milling Machine Co. 12	Clapp, Geo. M. 23																		
D	Clapp & Co. 21	Clark, Geo. P. 9	Clark, M., & Co. 6	Clark, Wm. Wirt, & Son. 24	Clarson & Slaysman. 10	Cleveland, Lorain & Wheeling R. R. 2	Cleveland Twist Drill Co. 2	Cocker, Wm. 29	Cohoes Iron Fdy. & Mch. Co. 31	Columbia Corrugating Mfg. Co. 27	Columbia Telephone Mfg. Co. 39	Columbus Iron Works Co. 25	Commercial Club. *	Consolidated Roofing Works. 37	Contractors' Plant Mfg. Co., Ltd. 4	Cooke, A. J. 22	Corbett Mill & Machine Co. 17	Cordesman, Meyer & Co. 29	Corres. School of Industrial Science. 34	Cortright Metal Roofing Co. 20	Cotter, W. T. 40	"Cotton Plant". 22	Covert Mfg. Co. 26	Covington, John I. *	Cox, Justice, Jr. 24	Crews & Westbrooks. *	Crompton Loom Works. 30	Cronk Hanger Co. *	Crosby, G. A., & Co. 26	Cummer, F. D., & Son Co. 19	Curtis & Marble. 31	Cutler Mfg. Co. 9																		
D	Daugherty Typewriter Co. 21	Davis, Frank E. 6	Davis, G. M., & Son. 8	Davis, L. W. 39	Davis Foundry and Mch. Works. 39	Davis, Kelly & Co. 23	Dayton Gas & Gasoline Engine Co. 16	Dean Bros. Steam Pump Works. 32	De Este & Seeley Co. *	Decatur Shaft Support Co. 10	De Kalb Courtenay. 6	De Loach Mill Mfg. Co. 29	Deming Co. 32	Denis & Lance. 6	De Ronde, F. 8	Detroit Electric Works. 9	Diamond Machine Co. 29	Dickson, S. C. 23	Diffenderfer, J. K. E. 6	Disston, Henry, & Sons. *	Dixon, Jos., Crucible Co. 40	Doig, Wm. S. *	Dopp, H. Wm., & Son. 30	Dorner & Dutton Mfg. Co. 34	Dow Wire Works Co. 10	Draper, Geo., & Sons. 20	Draper Machine Tool Co. 12	Drummond, M. J. 31	Dudley, S. A. 31	Dufur & Co. 10	DuQuoin Iron Works Co. 29	Dunn, C. W. 21	Dunning, W. D. 21	Duval, J. E. 39																
E	Eagle Boiler Works. 15	East Coast Mfg. Co. 26	Easton & Burnham Machine Co. 31	Eccles, S., Jr. 28	Edinburg Foundry & Machine Co. 28	Edwards, J. D. 22	Elbridge Electrical Mfg. Co. 38	Electrical & Mechanical Engineer- ing & Trading Co. *	Electric Heat Alarm Co. 2	Ellerhorst, J. G., & Co. 25	Elmore Iron Works. 9	Emerson, Smith & Co. 29	Emperger, Fr. von. 13	Empire Glass & Decoration Co. 26	Empire Paint & Roofing Co. *	Engineering Employment Bureau. 16	Enterprise Mfg. Co. 16	Epple, C., & Sons. 9	Erie Mfg. & Supply Co. 9	Eureka Fire Hose Co. 9	Evans Gas Engine Co. 16	Evans, George C. 24	Exchange Banking & Trust Co. 21	Exeter Machine Works. 17, 23																										
F	Farquhar, A. B., Co., Ltd. 29	Fay, W. J. 28	Fay, J. A., & Egan Co. 28	Fay Manila Roofing Co. 26	Fernandina, Fla. 36	Fernandina Oil & Cresote Works. 24	Fernoline Chemical Works. 24	Fidelity & Deposit Co. of Md. 21	Filley, A. E., Mfg. Co. 27	Fitchburg Steam Engine Co. 14	Fletcher & Thomas. 20	Foos Gas Engine Co. 16	Foos Mfg. Co. 10	Force & Briggs. 32	Forreth, S. C., Machine Co. 14	Forster Pulley Works. *	Fort Worth Iron Works Co. 14	Fosdick & Plucker Mch. Tool Co. 22	Foster Machine Co. 31	Freese, E. M., & Co. 25	French, Saml. H., & Co. *	Frick Co. 14	Frisbee Luop Mill Co. 18	Froehling, Dr. Henry. 6	Frontier Iron Works. 30	Fulton Stm. Boiler Wks. & Fdy. 9	Furbush, M. A., & Son Mch. Co. 30																							
G	Gainesville Iron Works. 18	Gandy Belting Co. 11	Gascoyne, Dr. W. J. 6	Gas Engine & Power Co. 34	Gate City Electric Supply Co. 39	Gates Iron Works. 18	General Electric Co. 38	General Fire Extinguisher Co. 8	Gerson Electrical Co. 39	Gilchrist, Peter S. 6	Gilmorgan Pipe & Foundry Co. 31	Glascock & Co. 8	Gleason & Bailey Mfg. Co. 8	Glen Cove Machine Co., Ltd. 28	Globe Gas Engine Co. 16	Globe Mineral Wool Co. 24	Glover, E. A. 35	Golden Machinery Depot. 22	Golden's Foundry & Machine Co. 11																															
G	Gordon Hollow Blast Grate Co. 15	Gowdey, J. A., & Son. 26	Graham, J. S., & Co. 26	Graves Elevator Co. 4	Greaves & Klusman. 29	Greensboro, N. C. 37	Groetzing, A., & Sons. 9	Guibert, John C. N. *	Guild & White. 6	Gunning & Stewart Co. *																																								
H	Haden, C. J. 37	Halpin, William. 11	Hanahan, J. Ross. 6	Hardick's Niagara Stm. Pump Wks. 33	Hardy, F. H. 22	Harrington & King Perforat'g Co. 8	Harris, N. W., & Co. 21	Hartford Steam Boiler Inspection & Insurance Co. 14	Hausburg, E. O. 8	Haven Elevator Co. 4	Hay, M. 22	Heffernan, Wm. A. 26	Help Wanted. 35	Hench & Dromgold. 30	Henderer, A. L. 8	Hendrick Mfg. Co. Limited. 5	Heywood, Warfield & Co. 6	Hickman, Williams & Co. 23	Hicks Gas Engine Co. 16	Hiertz, Theo., & Son. 34	Hill, Nicholas S., Jr. 6	Hirsch, L. K. 23	Hollingsworth, Wm. 23	Holmes, E. & B. 29	Hook, Chas. C. 6	Hoopes & Townsend Co. 13	Hotchkiss, L. L. 37	Howard Bros. Mfg. Co. 30	Hubbard, Alva, & Co. 24	Hughes, Chisolm & Co. 17	Hunt, John T., Mayor. 37	Hyde, George A. 37																		
I	Illinois Central Railroad Co. *	India Alkali Works. 30	Indiana Machine Works. 29	Ingersoll-Sergeant Drill Co. 20	Ingham, George. 30																																													
J	James & Co. 11	Jameson Fire-Resisting Paint Co. 27	Jarden Brick Co. 25	Jarman, Geo. R. 25	Jeffrey Mfg. Co. 17	Jenkins Bros. 40	Jones & Cochran. 24	Johns, H. W., Mfg. Co. 21	Johnston Line. 35																																									
K	Keasbey & Mattison Co. 20	Keith, B. F., Jr. 22	Kelly, O. S., Co. 16	Kemper, Chas. E. 21	Kilbourne & Jacobs Mfg. Co. 40	Kilburn, Lincoln & Co. 30	Killion, W. F., & Co. 39	Kimes, J. B., & Co. 27	Knowles Loom Works. 31																																									
L	Laidlaw-Dunn-Gordon Co. 32	Laird, R., & Son. 15	Land, M. W., & B. F. Cox. 6	Land Trust Co. of Georgia. 22	Lane Foundry and Machine Works. 14	Lane Manufacturing Co. 10	Lange, Wm. H. A. 10	Leathley, W. M., & Co. 33	Leffel, James, & Co. 16	Lidgerwood Manufacturing Co. 4	Lindsay, J. L. 31	Linham Dado Machine Co. 30	Link-Belt Engineering Co. 17	Locke Regulator Co. 33	Lodge & Shipley Mch. Tool Co. 23	Lombard, Geo. R., & Co. 9	Long & Allstatter Co. 12	Lookout Steam Boiler Works. 14	Loreley Machine Works. 21	Louisville Steam Pump Co. 32	Lowell Machine Shop. 30	Lubroline Oil Co. 12	Lucas, C. J., & Co. 33	Ludlow, J. B. 6	Ludlow-Saylor Wire Co. 10	Ludlow Valve Mfg. Co. 33	Lukens Iron & Steel Co. 33	Lum, George E. 15	Lunkenheimer Co. 40	Lyons, A. I. 24																				
M	Main Belting Co. 11	Makepeace, C. R., & Co. 6	Manhattan Equipment Co. 23	Manufacturers' Auto Sprinkler Co. 40	Marion Steam Shovel Co. 2	Marye, Philip T. 6	Maryland Trust Co. 21	Mason Machine Works. 30	McBride, A. J. 22	McDuck, R. 19	McCutcheon & Co. 6	McDonald, T. C., & Bro. 27	McDowell, Hamilton. 37	McEwen, J. H., Mfg. Co. 14	McGowan, John H., Co. 33	McLanahan & Stone. 34	McLaughlin, Geo. T., & Co. 18	McNaull, W. D. 15	McNeil, J. C., Co. 9	Mecklenburg Iron Works. 19	Melton, A. L. 26	Mercantile Trust & Deposit Co. 21	Mercantile Co. 26	Mercantile Electric Co. 38	Mercantile & Miners' Transp. Co. 35	Merrell Mfg. Co. 9	Metropolitan Electric Co. 39	Meyers, Fred, J., Mfg. Co. 10	Middendorf, Oliver & Co. 21	Miles, Frank T., Co. 9	Miller, L. J. 18	Miller O. A. 27	Mills Wool & Leather Co. 31	Miner & Kettig Co., The. 2	Minnigerode, Wm. 24	Mitshun, M., & Co. 23	Monash, C. P., Manager. 9	Montrous Metal Roofing Co. 26	Moore Mfg. & Foundry Co. 9											
M	Moore & White Co. 8	Morris, Tasker & Co. 39	Morse, Williams & Co. 4	Morton, Reed & Co. 12	Mueller, H., Mfg. Co. 33	Mundt & Sons. 17	Murphy & Bruning. 39	Murray, Dougal & Co., Ltd. 4	Murray, James, & Son. 19																																									
N	Nanz & Co. 16	National Pipe Bending Co. 9	National Water-Proof Fibre Co. 10	National Wringer Co. 9	Nelms, Menefee & Co. 37	Newell Bros. 10	N. J. Car Spring & Rubber Co. 16	New Jersey Car Stor. & Repair Co. 23	Newport News Shipbuilding & Dry Dock Co. 16	New York Belt'g & Pack'g Co., Ltd. 11	New York Equipment Co. 35	New York Machinery Depot. 23	New York, Mobile & Mex. S. S. Co. 35	New York & New England R. R. *	Niagara Stamping & Tool Co. *	Niagara Steam Pump Works. 33	Nicholls, Geo. W. 22	Nichols, W. A. 22	Nicholson File Co. 40	Nicolls, W. J. 23	Niles Tool Works Co. 23	Nordyke & Marmon Co. 20	Norfolk & Western Railroad. 23	Norfolk Foundry & Machine Co. 8	North American Metaline Co. 34	Northrop, A., & Co. 26	Norton Emery Wheel Co. 12	Nye & Treddick. 30																						
O	Ober Lathe Co. 39	Old Dominion Elec. Cons. Co. 28	Old Dominion Line. 35	O'Neill Mfg. Co. 25	Orday, James A. 6	Otto Gas Engine Works. 20																																												
P	Palmer, E. K. 37	Pancoast, Henry B., & Co. 13	Paret & Farquhar. 6	Patapasco Rubber Co. 24	Patterson Mills Co. 22	Paul, Thos. H., & Son. 16	Paxson, J. W., & Co. *	Peacock, George. 22	"Pebble". 22	Peck-Smead Co. 26	Penn Argyl Iron Works. 4	Penberthy Injector Co. 40	Pennsylvania Machine Co., Ltd. 23	Petersburg Iron Works Co. 14	Pettee Machine Works. 31	Phelps Bros. & Co. 11	Philadelphia Drop Forge Co. 9	Philadelphia Eng. Works, Ltd. 11	Phila. Textile Machinery Co. 30	Phoenix Iron Works Co. 4	Phoenix Telephone Co. 39	Pickrell, Percy A. 21	Pierce Engine Co. *	Pitts, A. L. 27	Pittsburg Crushed Steel Co., Lim. 39	Pittsburg Locomotive Works. *	Place, George, Machine Co. 23	Plenty, Josephus. 26	Poage, Alex. 40	Pomona Terra Cotta Co. 24	Porter, H. K., & Co. 13	Porter-McNeal Co. 22	Poulter & Co. 23	Powell, Wm., Co. *	Powhatan Clay Mfg. Co. 25	Pratt, N. P., Laboratory. 6	Prentiss Tool & Supply Co. 23	Price & Co. 24	Price & Evans Mfg. Co. 8	Price & Head. 22	Propst, E. L. 22	Providence Machine Co. 31	Pulsometer Steam Pump Co. 32							
Q	Q. & C. Company. 12	Quadruple Steam Pump Co. 32	Queen City Printing Ink Co. 36	Queen City Supply Co. 11	Queen & Crescent Route. *																																													
R	Ralston & Co. 23	Rand Drill Co. 8	Rankin, W. L., & Bro. 18	Raymond Bros. Impact Pulv. Co. 24	Rayner, Wm. S. 22	Read, Chas. H., Jr. 6	Reading Wood Pulley Co. 10	Record Printing House. 36	Reed & Wingfield. 37	Rees, George S. 26	Reith, William. 26	Remington Machine Co. 25	Rennous, Kleinle & Co. 4	Repauno Chemical Co. 10	Reuter & Mallory. 22	Rhoads, J. E., & Sons. 11	Rhode Island Tool Co. 13	Richmond & York River Line. 35	Richmond City Mill Works. 13	Richmond Loco. & Mch. Wks. 13	Ridgmont Cement & Mfg. Co. 6	Ripley, H. C. 6	Ronanoke Roofing & Met. Cor. Co. 27	Robinson, Jas., Mfg. Co. 31	Robins, A. K., & Co. 10	Robinson, J. M., & Co. 26	Robinson, Wm. C., & Son. 12	Robinson & Orr. 23	Rochester Machine Tool Works. 16	Ross, Josiah. *	Rowley & Hermance Co. 29	Russell & Minnigerode. 40	Ryan-McDonald Mfg. Co. 4																	
S	Sadler's Business College. 35	Sanderson, John. 6	Santa Fe Route. *	Sargent, J. Bradford. 15	Saunders, D., Sons. 12	Savage & Tyler. 17	Scaife, Wm. B., & Sons. 13	Schieren, Chas. A., & Co. 11	Schmitz, E. J. 6	Schofield's Iron Works. 15	Seckner Contracting Co. 6																																							
S	Shawhan-Thresher Electric Co. 38	Shultz Belting Co. 11	Sibell, G. H., & Co. 22	Simpers, Thos. W., & Co. 4	Simpson, Chas. W. 24	Simpson, H. P. 32	Sims Co., Ltd. *	Sinclair, S. H., Co. 26	Situations Wanted. 35	Skinner Chuck Co. *	Slatington Bangor Slate Syndicate. 40	Smith-Courtney Co. 9	Smith, S. Morgan. 33	Smith & Kilby Co. 24	Smith & Thompson. 6	Smith Sons Gin & Machine Co. 30	Smithers, H. F. 23	Southeastern Plaster Co. 23	Southern Iron & Equipment Co. 23	Southern Log & Cart Supply Co. *	Southern Lumber Directory. *	Southern Pacific Co. *	Southern Railway Co. *	Southern Railway Supply Co. 4	Southern Saw Works. 29	Southern Telephone Co. 39	Spence, L., & Son. 15	Standard Electric Co. 38	Standard Paint Co. 27	Standard Tool Co. 40	Starr, B. F., & Co. 19	Stebbins, Wallace. 13	Stedman's Fdry. & Mch. Works. 19	Steel Cable Engineering Co. 2	Steel Rail Supply Co. 23	Stephens & Stephens Mfg. Co. 27	Stevens, H., Sons Co. 40	Stevenson & Co. 10	Stewart, Jas., & Co. 6	Stillwell-Bierce & Smith-Vaile Co. 33	Stow Flexible Shaft Co., Ltd. 33	Stow Mfg. Co. 9	Stuebner, G. L., & Co. 8	Sturtevant, B. F., Co. 31	Sturtevant Mill Co. 17, 18	Sullivan Machinery Co. 17	Supplee Steam Engine Co. 15	Supply Manufacturing Co. 39	Sutton, H. H. 22	Sweet, B. F. & H. L. 9
T	Talbot & Sons Co. 15	Tanner, C. W., & Co. 8	Taper-Sleeve Pulley Works. 8	Tarbell, C. D. 22	Taunton Locomotive Mfg. Co. 9	Taylor, Stiles & Co. 20	Tennent, J. A. 6	Thompson, Percy, & Co.																																										

* Not in this issue.